

# AMERICAN RAILROAD JOURNAL.

## STEAM NAVIGATION, COMMERCE, MINING, MANUFACTURES.

HENRY V. POOR, Editor.

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### AMERICAN RAILROAD JOURNAL.

PUBLISHED AT 54 WALL STREET, NEW YORK.

Saturday, June 9, 1849.

### To Railway Presidents, Directors, Engineers and Superintendents.

We design to make the Railroad Journal a complete record of railway progress and railway traffic in the United States. The importance of the subject is acknowledged by every person interested in railway matters, and all express a desire to possess this information. We know of no mode of securing this end but through the agency of parties now in the management of the various railroad companies.

We are under great obligations to many gentlemen who have placed every desirable item of information of this sort at our disposal. We beg the same from parties connected with all the other companies whose returns are deficient.

Will not the President of each railroad company take the trouble to cause the thing to be done at once? After correcting our share list, when the same shall be discovered to be erroneous or defective, we ask them to send us by mail in addition, the following viz:

1. The name and residence of each Director; of the several officers of each company, including the President, Vice President, Secretary, and Treasurer; also, the name of each Engineer, Superintendent and Conductor.

### 2. The stations, fares and running time on each road.

### Iron Ores and the Iron Manufacture of the United States.

MASSACHUSETTS.

Continued from page 341.

*Black oxide of manganese*, in the form of the mineral *psilomelane*, often accompanies the hematites. It is found sometimes pure, quite free from the iron ore, which, when mixed with it destroys its value. It is worth to the manufacturers of bleaching salts, (chloride of lime,) according to its purity, from thirty to sixty dollars per ton. Much that is sent to market is condemned, as of inferior quality, greatly to the discouragement of the mining enterprises. Like the iron ore, it lies next the limestone, under no stratum of rock, but in loose irregular layers of most uncertain dimensions, following the verge of the limestone. It seems as if it had infiltrated into the loose materials, filled such crevices as there were among them, and incrustated the fragments of limestone. It has been wrought to considerable extent at Chittenden Vermont, West Stockbridge and Sheffield, Massachusetts.

As the commercial value of the manganese ore is destroyed by mixture of the oxide of iron, which, even in small quantity is a serious detriment to it, so the hematite iron ore is sometimes rendered useless from its large percentage of black oxide of manganese. We have already had an example of this in the "black ore" of Wallingford, Vermont, which, according to the analysis of Mr. Olmstead, contained thirteen per cent. of oxide of manganese. This made in the furnace a high white iron of poor quality, which was an alloy of metallic iron and metallic manganese. In the proportion of thirteen per cent., therefore, black oxide of manganese seems to render the ore worthless to work alone. Such ores ought to be used only when mixed with a large proportion of purer oxides of iron.

In a communication to the British Association for Advancement of Science, at their meeting in September, 1837, Dr. T. Thompson gives the analysis of six varieties of cold blast pig iron, and four of hot blast, all smelted from the carbonaceous ores of the Glasgow coal field. The greatest percentage of the cold blast iron in manganese was 7.14; and the mean of the six 2.037. The greatest percentage of the hot blast in manganese was 3.12; the mean of the five 0.87.—No remark was made as to the particular effect of the manganese.

The principal result of this report was that hot blast iron, though not so strong as the cold blast, contains only about half the foreign matter that this does. Manganese in small quantity is generally considered advantageous in improving the quality of the iron. Karsten remarks in his treatise on the Manufacture of Iron, that it renders the iron (i. e., malleable iron) harder without lessening its tenacity. In some malleable iron, ductile and of excellent quality, he found 1.85 per cent. of manganese.

May it not be that the oxide is beneficial also in the roasting of the ores, a portion of its oxygen being given out directly in contact with the sulphur and arsenic, which the roasting is in part intended to expel?

As to this tendency, which the highly magnesian ores have to make white pig iron, the same author above quoted considers it is owing, not to any direct agency of the manganese, but to the indirect influence this has in forming a too fusible cinder, thus causing the furnace to work cold. As proof that this is the case, it is found that the grey iron made with magnesian ores contains more manganese than the white iron. To correct the injurious influence of the manganese it is necessary to make use of fluxes or a mixture of other ores, which contain bases, that will produce refractory silicates; (a highly magnesian limestone might answer, or an aluminous clay,) then, by working hot, the furnace should run grey iron. These suggestions are the substance of, and inferences from, the remarks of Karsten, as given in the first vol. of the French edition of his works, pages 228, 229 and 230. They might perhaps be applied with advantage to the furnace at Plymouth, Vermont, already described.

In some of the ore beds, as at West Stockbridge, Massachusetts, and the Amenita ore bed, New York, there is found, besides the hematite, a valuable spathose proto-carbonate of iron. This ore, of a white color and unmetallic lustre, appears little like the rich material it is. Its character has but lately been discovered, though many hundred tons of it have been thrown away at the mines where it occurs. It was first proved by C. C. Alger, Esq., at the Stockbridge iron works, and is now highly prized as an important ore to mix with the hematite to facilitate reduction and improve the quality of the iron. I have analysed specimens of this ore, of a light grey color, of mamillary and compact structure, giving a yellowish grey powder. Its composition is as follows—

Insoluble matter .....	5.77
Carb. lime .....	2.07
Protoxide of iron .....	54.58
Carbonic acid .....	34.19
Carb. manganese .....	4.24

100.85

Its percentage in iron is then 42.55 before roasting. After this process, a considerable portion of the carbonic acid being driven off, its percentage is proportionally increased. After long exposure to the atmosphere, this species of ore becomes of a dark brown or black color from the per oxidation of the ferruginous portion of its crust, and then it may not so readily be distinguished as the same light colored ore, like sandstone.

The limestone that accompanies these ores is often highly magnesian, being a true dolomite, which contains 45 per cent. of carbonate of magnesia.—This is the character of the flux used at most of the furnaces. Some experiments have been made at the Stockbridge furnaces under the direction of C. C. Alger, Esq., to test the relative properties of this dolomite, and the pure marble as fluxes for the ores. The flux formerly used with great success was a bluish colored dolomite, the composition of which I found on analysis was as follows:—

Silica .....	2.50
Alumina and oxide of iron .....	2.25
Carbonate of Lime .....	52.50
Carbonate of magnesia .....	40.80
Water and loss .....	1.95

100.00

For this was substituted a beautiful white granular marble, the analysis of which gave me the composition—

Silica .....	1.1
Alumina and oxide of iron .....	1.2
Carbonate of Lime .....	95.5
Carbonate of magnesia .....	1.2
Water and loss .....	1.0

100.0

With this the furnace was run for more than a week, but with no improvement. On the contrary, it was thought not to work so freely as with the dolomite flux. This is in accordance with Karsten's remarks upon the fusibility of the silicates—"that the silicates with multiplied bases are generally more fusible than the silicates with simple bases."\*

But it happened subsequently to be convenient to use another flux; and this was attended with such decided improvement in the running of the furnaces, that it has continued in use ever since. Its composition I find to be—

Siliceous residue .....	2.07
Oxide of iron and alumina .....	0.85
Carb. magnesia .....	6.80
Carb. of Lime .....	89.24
Water and loss .....	1.04

100.00

The texture of the three limestones is not materially different; the second was the most crystalline; the first the least so. So far as these experiments go, they seem to show that for the Stockbridge hematites, a limestone somewhat magnesian is preferable to a pure calcareous flux; but they are not sufficiently extended to determine the best proportion of the carbonate of magnesia to the carbonate of lime. It is questionable, indeed if this be possible, for any ore, as it is found a difference in the temperature of the blast, causes derangement in the running of the furnace, which is corrected by having recourse to a different variety of limestone for flux; and actual experiment alone determines the

kind required. The limestone being a good durable stone and easily wrought, is much used for building the outer stack of the furnaces; and so abundant is it that large quarries seldom fail of being found within less than a mile of any suitable site for furnaces.

The refractory quartz rock, which forms many of the mountain ridges, furnishes in some of its layers a good stone for hearths, which is got out in large blocks well shaped on their sides. Some of the thinner layers of this rock are occasionally used for lining the inner walls of the furnace, but fire brick is more suitable for this purpose. The disintegrated and crumbled quartz rock, with the thin seams of talcose clay between its layers, furnishes excellent materials for these brick, which have long been manufactured at Bennington, Vermont, and will probably soon be at Lanesboro, in Berkshire county.

There has lately been opened an extraordinary bed of this disintegrated quartz or quartz sand, which is to prove of no little consequence to the iron furnaces in the neighborhood, though its more obvious use is for the manufacture of glass, to which it has already been extensively applied. On account of its importance in furnishing excellent materials for brick and for fire mortar for the furnaces, a short description of the sand bed may not be inappropriate in this place.

The high ridge extending from Dalton to Cheshire, and still farther down the east side of the Housatonic river, is principally composed of quartz rock. The strata dip at a very steep angle, either to the east or west, and follow the direction of the ridge in its north and south course. The rock is occasionally seen in bold ledges projecting from the sides of the hills, or piled in large heaps of loose blocks from their base to their summit. This is particularly the case in the gaps or gorge through the ridge, as in that through which the road passes from Dalton to Lanesboro'. At such places, the rock is of the hardest texture and most durable qualities. Too hard for hearth stones, these are sought where the rock assumes more mica in its composition, and so cleaves into more even blocks. In some places the rock has disintegrated and crumbled at the surface into the grains of sand of which it is composed. If it contains much iron in its composition, the sand is stained yellow; but the clear white quartz separates into the purest transparent glassy grains, whose only contaminations are the thin layers of talcose clay, which fill the seams of stratification of the quartz. On digging below the surface where this sand is found, the quartz, to all appearance, is in the state of stone regularly stratified and solid; but on breaking it down with a pick, the lumps are found to crumble in the hand, or fall after exposure to the air into the beautiful white sand. Washing in a stream of water carries off all the clay, which may be collected below, and which proves to be of precisely the composition to make the most refractory bricks when mixed in proper proportions with the sand. A bed of these materials, inexhaustible in quantity and unsurpassed in purity, was discovered in the summer of 1847 by Samuel Smith, Esq., of Boston, who was engaged at the time in establishing the furnace at Lanesboro'. He had the clay tempered with the sand used for laying the hearth stones of this furnace, and it proved to answer the purpose desired extremely well. Between one and two thousand tons a year of the sand are now sold to the different glass works in the United States, and large samples have been sent to Havre and Liverpool, where it is expected

it may be profitably disposed of. An English house in Stourbridge has taken fifty tons. The Brooklyn Flint Glass Company, of New York, have produced from this sand the clearest and most brilliant flint glass ever made in this country.

Such is the general character of the mineral resources of this western part of Massachusetts. The value of the iron ores depend, however, on the convenience and abundance of fuel for their reduction, and cost of transportation both of materials and of the metal produced, to the great markets on the sea board.

The extensive ridges and mountain track, which alternate with the fertile valleys of Berkshire county, offer no inducement for cultivation. Once stripped of their timber, the trees are suffered to spring up again, and in about twenty years the growth has been sufficient for another clearing. In this way the furnaces are kept provided with sufficient stock of charcoal, made from the chestnut, hemlock, maple, oak, beach, ash and birch of the hills in their neighborhood. Furnaces that have been running twenty years or more, and which are situated in the neighborhood of the larger towns, are compelled every year to look a little farther off for a portion of their supplies, and some are now obliged to draw them from ten to fourteen miles. A hot blast furnace, making six tons of iron per day, and running three hundred days in the year will consume for all purposes about 270,000 bushels, or 150 bushels to the ton. This corresponds to about 6,750 cords of wood, or at the average rate of 30 cords to the acre or 225 acres per annum. For a constant supply, therefore, such a furnace would require twenty times this amount, or 4,500 acres, that the growth might equal the consumption. Few own such bodies of wood land, but buy their fuel, either standing or prepared for the furnace as they require it; and the cost per bushel of charcoal delivered at the works varies from five to seven and a half cents. Most of the works are situated near one of the railroads which pass through the county, and the cost of transportation to New York or Boston does not differ much from \$3.50 per ton.

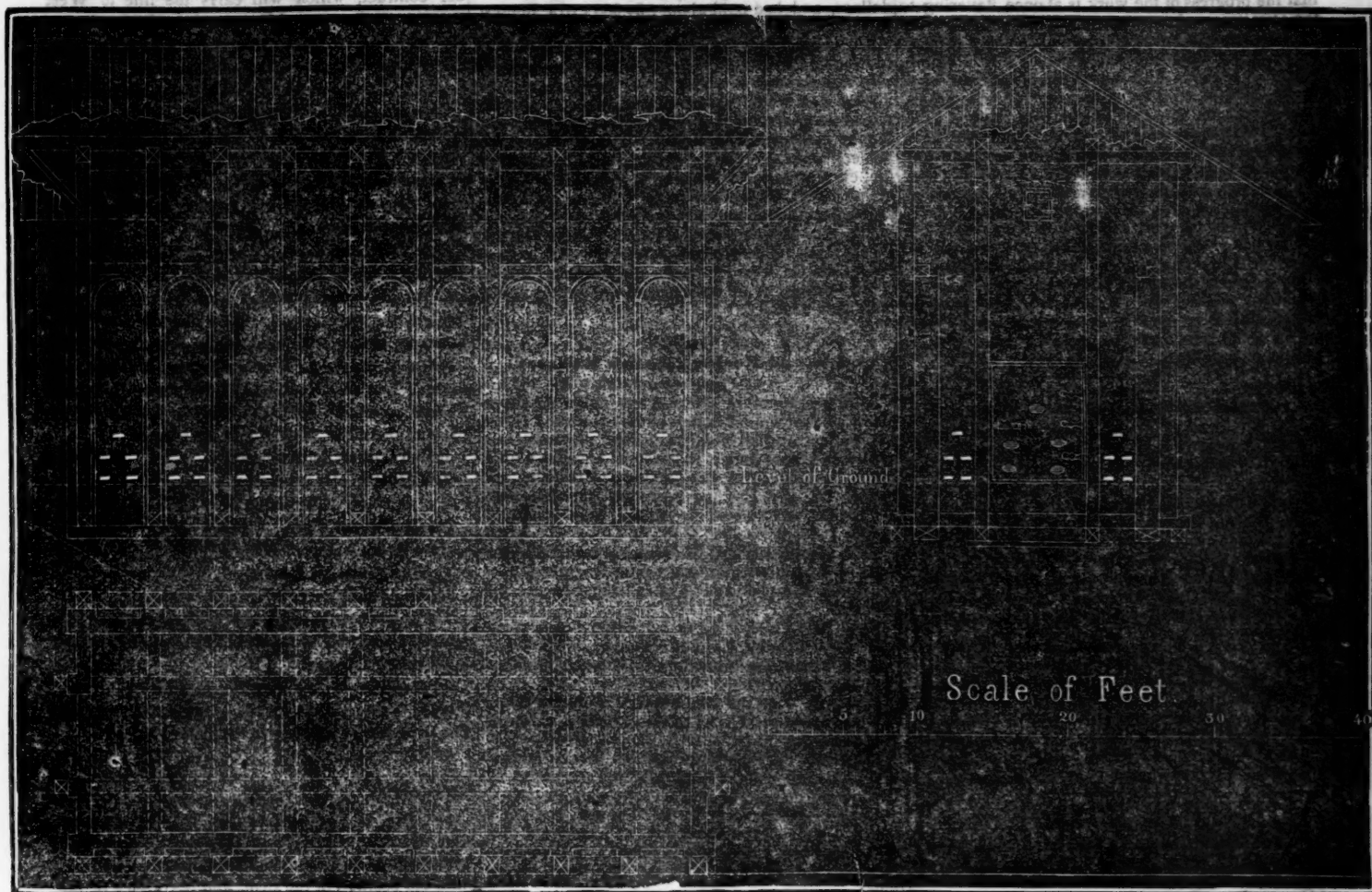
The quality of the iron made varies somewhat with the works, but most of it is such as is rarely made with other ores and fuel than hematite and charcoal—suitable either for foundry or forge iron; the best of the former making the strongest castings, so that it is purchased for the manufacture of heavy cannon at the Cold Spring works on the Hudson, and the latter being in high repute for soft tough iron, is bought by the numerous forges for their best work.

Below is an engraving of the kilns used at one of the Massachusetts furnaces for charring the wood. The construction is very perfect, and is sufficiently apparent in the different sections, that similar kilns may be constructed from them. They hold about 60 cords each, and require from three to six days for charring, and about the same time for the fire to be extinguished, unless this is hastened by introducing water or steam. When well conducted, they produce at the rate of about 50 bushels to the cord, or 3000 bushels to one charge. They ought to stand in an exposed situation, where the air can blow upon them freely. The vent holes around the sides are just the size of a brick—4 inches by 2½, and are opened and closed by the use of loose bricks as the operation goes on, being made tight by plastering with mortar. The whole walls and the brick arch over head ought to be covered with a coating of mortar, to prevent leakage. About 60,000 bricks are required to build each kiln.

\* Karsten, Manuel de la Metallurgie du Fer, Tom. 1, p. 309.



## Engraving, Representing the Form of Kiln used in Making Charcoal.



## Returns of Railway Companies in Great Britain.

We have spoken upon the subject of the returns of railway companies in two previous numbers of the Journal. The importance of this matter to the railway interest, cannot be easily exaggerated or over stated. *Herapath's Railway Journal*, received the present week, is largely occupied with the same subject.

On the 27th of April, the British House of Lords, on motion of Lord Brougham, ordered the following returns to be made by each railway company in the United Kingdom:

Return of the Share Capital of every railway in the United Kingdom. The capital authorised to be raised by their Acts of Parliament. The number of Shares issued, and number allotted to each Director, Committeeman, or other person connected with the Company. Amount of each Share. Number of Shares reserved, and for what purpose, and how disposed of and to whom. When the calls on such shares became due. When received. The capital or moneys raised by each railway in the United Kingdom on loan or on the security of their debentures or otherwise. When debentures were issued. Date of act of Parliament sanctioning such issue of debentures. Amount of each debenture. Rate of interest paid to the lender, and any other terms agreed on for the purpose of raising money. Term for which such loan was made. Commission or other sum paid by the Railway Companies to the broker or agent for obtaining loans on the security of debentures or otherwise.

Cost of construction of each railway and each branch railway, exclusive of land purchases, parliamentary expenses, and law charges. Law charges, and stating whether taxed or not. Money ex-

pended in purchase of land and property, distinguishing the expenses and charges from the price of the land. Parliamentary expenses—engineering charges—cost of railway plant. Amount entered in each year's printed account for depreciation of plant. Total annual receipts from passengers or goods from the first opening of any portion of the railway. Total annual expenditure contingent on the working of the railway, exclusive of the interest paid to the debenture holders and others. Mode by which the fixed dividends that have been paid to the various Shareholders was ascertained. The loans made by each Railway Company to any other Railway Company or person, to whom and when, at what rate of interest, and when repaid. Amount of subscription paid and agreed to be paid, and guarantees given or agreed to be given, of capital or interest, by any Railway Company or person to any other Railway Company or person; when paid or given or agreed upon, and for what purposes, of whom the shares were taken. The date of any act of Parliament, or the powers and authorities of every Railroad Company to subscribe to or hold shares or interest in any other Railway Company, and to what extent.

## "Times Change and we Change with them."

The truth of the old adage is forcibly illustrated in the following statement given by an eye-witness, who attended the examination of the "Railway King," before the Committee of the Eastern Counties railway, to which matter we have more than once referred:

## Hudson under Examination.

"George Hudson," said Mr. Cash, "wilt thou take a seat? As thou hadst the financial department of this company under thine especial control, thou art required to answer a few questions which the

committee will put to thee. Didst thou ever, after the accountant had made up the half-yearly accounts alter any of the figures?" Mr. Hudson, in a subdued tone, answered, after a moment's hesitation, "Well, I may perhaps have added a thousand or two to the next account." "Didst thou ever add 10,000?" continued Mr. Cash. "Ten thousand! that is a large sum." "It is a large sum, and that is the reason why I put the question to thee. Wilt thou give the committee an answer—yea or nay?" Mr. Hudson, in a subdued voice, and evidently much embarrassed, replied, "I cannot exactly say what may have been the largest sum I carried to the following account." "Perhaps, George Hudson, thou couldst inform the committee whether thou ever carried to the next account so large a sum as 40,000?" "Oh, I should think not so large a sum as that." "But art thou quite sure thou never didst?" Here again the quondam monarch of the railway kingdom showed considerable hesitation and embarrassment, on which his Quaker inquisitor did not further press the question; and putting the questions, drawn upon a sheet of paper, into his hand, observed with a dry nonchalance which must have been very annoying to the quondam Chairman of the company, "George Hudson, take the questions home with thee, and send written answers to the committee at the earliest convenience!" Never, it is said, was there so marked a change, in so short a time, in the manners and appearance of a man. Formerly even his colleagues in the directorship were afraid to speak to him; but now he is all humility, mildness and docility—willing to answer any question, and to do anything he is asked.

## Georgia.

## South Western Railroad.

The Macon Telegraph, of last week, says: "The Directors of this road held a regular meeting in this city on Wednesday and Thursday of last week. We

have not been able to get such an account of their proceedings as would authorize us to say more than that the progress of the work is at once flattering to the Directors and encouraging to the company, and to the interest of those who are in any way connected with it. A great deal depends, in the infancy of such a work as the South Western railroad, upon the energy and capacity of the Directors who are entrusted with the interests of the corporation. The present Board by their enlightened enterprise have already given the stockholders of this company and the public at large, much cause to believe that they are just such men as will resolutely call into exercise every means at their command for the early completion of the great work with which they are connected. Fifty-two miles of the road, we are assured, will be completed and fully equipped, in less than eighteen months. This will carry it to the west bank of Flint river, in time to receive the crop of the adjoining counties of South Western Georgia for 1850. Such are the present auspicious indications of the affairs of this company."

#### Virginia.

##### Orange and Alexandria Railroad.

The organization of the Orange and Alexandria railroad company has been duly effected by the election of a President and Board of Directors, as follows:

George H. Smoot, President.  
Dr. Wm. L. Powell, Vice President.  
Directors elected by the company—Dr. William L. Powell and Henry Dangerfield.  
Major Charles Hutton and Wm. J. Stover of Fauquier, and John S. Barbeur, Jr., of Culpepper, had previously been appointed Directors on the part of the state.

#### Louisa Railroad.

The Richmond Republican says that the energetic President and Board of Directors of the Louisa railroad are using every exertion to push the work to the Mountain during the year, at which point the Board of Public Works will lay hold, and penetrate the Blue Ridge by a tunnel of more than 5000 yards.

#### Massachusetts.

##### Eastern Railroad.

A special meeting of the Eastern Railroad company was held at the Exchange Hotel in Boston, on Thursday afternoon of last week.

On motion of Mr. Sturgis, the vote passed the 24th of May, 1848, accepting the act of the Legislature of the same year was reconsidered.

The next question was upon the acceptance of the act authorizing the Eastern railroad company to extend their road through Chelsea and Charleston, into Boston, passed by Legislature on the 2d of May, 1849. This act was accepted, by a large majority. It was then, on motion of Mr. Sturgis, voted, that the Directors be instructed to cause surveys and examinations to be made, of the expenses which would be occasioned by carrying the said act into effect, and to report the same to a meeting of stockholders; and that no other step be taken by the Directors, in the premises, without further action of the stockholders.

The President, on introducing the business of the meeting, gave the following satisfactory explanation of a subject which has attracted some attention among the stockholders:

"During the last session of the Legislature, the Committee on Railways and Canals proposed certain questions to the treasurers of the several railroads in this state, and they were answered by the Treasurer of this company precisely according to the facts. One question was, what was the amount of money borrowed during the year 1843; and the answer gave in detail the several sums and the time for which each loan was made. The gross amount was \$1,054,186 05.

But the payment during the same time, about which the Committee forgot to make any inquiry was.....\$1,251,187 12  
Showing a diminution of debt, during the year, of.....197,001 07  
The total amount of interest paid was stated at.....33,902 61  
(or ten and five hundredths per ct.)  
The amount at 6 per cent would have been.....20,239 62  
Leaving the amount of extra.....13,663 29

But it has been represented that the company had created a debt during the year of over a million of dollars, and had paid about \$34,000 extra interest.

The sole cause of the large temporary loans in 1848, arose from the delay of the Legislature in granting an increase of capital. Had it been given when asked for, it would have been taken at par, and no loan would have been necessary. It was detained till near the end of the session, and then the money market had become so stringent that stockholders could not take it. Money was borrowed at the current rate, rather than sacrifice the stock or the property. It was altogether a matter of calculation, and that course was taken which was deemed most for the interest of the stockholders and the corporation. The business of the road is in a prosperous state. The receipts for the first four months of 1849 exceed by \$8,000 those of the corresponding months of 1848."

#### Ohio.

##### Scioto and Hocking Valley Railroad.

CHILLICOTHE, May 9th, 1849.

At a meeting of the stockholders, under the supervision of the Commissioners of the Scioto and Hocking Valley railroad company, held pursuant to a public and legal notice, at the court house in Chillicothe, John Medaria, Esq., acting as President, and Seneca W. Ely, Esq., as Secretary, the following gentlemen were elected directors of said company, to wit:

J. V. Robinson, C. A. M. Damarin and B. F. Conway, of Portsmouth, Committee on Engineers.  
Francis Campbell and Wm. H. Douglass, of Chillicothe.

Thos. W. White, Esq., of Lancaster.  
Geo. W. Penney, Esq., of Newark.

After which, the following resolutions were unanimously adopted:

Resolved, That the annual elections of the Board of Directors to be held by the stockholders on the 2d Wednesday in May.

Resolved, That the Directors be hereby authorized, in their opinion it be right and proper, to allow interest on instalments actually paid in.

The Directors, except G. W. Penney, met at 8 o'clock P. M., on the same day, at Madeira's Hotel, and having organized by electing J. V. Robinson President, proceeded to pass the following resolutions:

Resolved, That the President and two Directors be a committee to employ a capable engineer, to make a reconnaissance of such line or lines as may be deemed necessary for the Scioto and Hocking Valley railroad from Portsmouth to Newark.

Resolved, That no further action of this board take place until the town and county elections shall determine what amount the counties of Pike, Ross, Pickaway, Fairfield and Licking will subscribe to the stock of said road—unless a meeting of the board which may be called by order of at least four Directors shall otherwise direct.

Ordered that the proceedings of this day be published in the newspapers on the line of said road. The board then adjourned.

#### New Hampshire.

##### Boston, Concord and Montreal Railroad.

The annual meeting of the Boston, Concord and Montreal Railroad Company took place last week, and the Directors submitted a Report of the third year of the operations of this road up to the 1st of May, 1849, which report has just come to hand.

This road has been carried forward with a good degree of spirit and economy, chiefly from money raised by the people along the line. It is a cheaply built road, having a light rail of some 40 lbs. to the yard.

The chartered line of this road extends from Concord, through Meredith, Plymouth and Rumney to the Connecticut river in Haverhill, and thence to a point opposite the mouth of Well's river, a distance of 93 miles.

The road was opened as far as Sanbornton, May 22, 1848; to Meredith Bridge, August 8, 1848; to Lake Village, October 1, 1848; and to Meredith Village on the 19th of March 1849, 38 miles.

Twenty-three miles more of the distance are under contract, which will carry the line to West Rumney, a distance of 61 miles from Concord. Of this 23 miles, three are graded, on nine miles more the grading is about half finished, and it is one-third done on the remaining 11 miles under contract. The company have expended \$865,530, and the Directors estimate the cost of 61 miles finished at \$1,175,521.

The receipts from assessments on the capital stock paid in is \$759,460, and the Directors state the capital stock taken at \$908,200.

The Directors express the belief that sufficient new stock can be disposed of to pay for the grading and masonry, and they recommend the hiring of the balance necessary to finish the road to West Rumney, rather than offer stock below par. The stock sold recently at prices from 82 to 85 per share. The old Board of Directors was re-elected with the exception of B. F. Simpson, Esq., of Lowell, who declined. The Board consists of

Josiah Quincy, of Rumney,  
Z. Clement, of Sanbornton,  
S. C. Lyford, of Meredith,  
Ira Goodall, of Bath,  
Geo. B. Chandler, of Danville, Vt.  
J. M. Whiton, of Boston,  
John L. Clark, "

There has been a sharp competition between this company and the Northern and Passumpsic roads during the past year.

The earnings of this road to January 1, 1849, were.....\$32,329  
The expenses of running to the same time were.....13,492

Net earnings.....\$18,837

The cost of this part of the road was about \$450,000.

The following remarks of the Directors will explain the position of the road, and the views of the Directors:

The time allowed in the charter for completing the road will expire December 1st. 1855. We have no reason to fear any competing or rival lines. The Legislature hitherto have acted on the principle of refusing to charter roads that might be regarded as materially injuring other previously chartered roads, especially while in process of construction; and there seems, at present, no public necessity for interfering with this reasonable policy. Our line, occupying the ancient and natural route of the travel between Northern Vermont and New Hampshire, and Concord, Lowell and Boston, has a large business on its border that will not be turned away from it. There is no reason to suppose the remaining part of the line will not be constructed as cheaply as the part already constructed. The line will be one of the cheapest, if not, considering its length, the very cheapest railroad, in New England.

It must be borne in mind that this corporation has had no aid from the monied interest of New England; for the most part, the means have been furnished by the country through which the line passes, of which the great number of our stockholders, and the small amounts in which the stock is held, is an evidence.

The confidence in the ultimate value of the stock appears to be great, and justly so. That it should have sustained itself, without any adventitious aid, in the face of a stringent money market and forced collection and sale of a large amount of delinquent shares, and sales of new stock, shows that it is so; and there is little doubt that the accumulations of the community along the line, aided as they will be by the part of the road already built, will, in a comparatively short time absorb all the new stock needed for the completion of the work.

#### Cheshire Railroad.

Since our last issue, we have been favored with a printed copy of the last annual Report of the Di-



rectors of the Cheshire railroad company. Our readers will recollect our strictures upon the Report of the Directors, submitted to the Massachusetts Legislature in January last.

We have read the report of the Directors with much care, but see no reason to modify our opinions before expressed, as to the accuracy of the Legislative returns. In regard to the capital, or total cost of the road, the Directors say:

"The full cost of the road, or, in other words, the amount at which the capital of the road must ultimately stand, it would be difficult to state now with precise accuracy; but it can be done very nearly. To the amount of payments, as above \$2,289,997 37

Must be added—	
1st. The discount on the 5711 shares of stock issued at 75 per cent.....	142,775 00
2d. The amount now due for rails, and other outstanding claims, and for expenditures necessary to entirely finish the road.....	105,000 00
3d. Interest due to stockholders up to May 1, 1849.....	132,526 00
	2,670,298 37

To be deducted from this amount is

1st. Cash on hand.....	28,298 97
2d. Amount of real estate in Winchendon, Fitzwilliam, Troy, Keene, and Westmoreland, not absolutely necessary to the use of the road, including buildings, wood lands, &c., estimated at.....	24,500 00
3d. Assessments due on old and new stock, on which part has been paid.....	34,545.50
4th. Notes receivable.....	23,310.00
	110,654 47

Total cost, or capital..... 2,559,643 90

The total cost of the road, it will be seen, exceeds very much the early estimates. It has overpassed all the limits which have been fixed and enlarged from time to time, as the road has progressed.

Though not a very unusual result in works of this magnitude, it is one that occasions something of surprise and disappointment to each successive class of adventurers who undertake and accomplish them. We believe, in our case, it has not arisen from any disposition on the part of the board of Directors, or the Engineer who has had charge of the work—and to whose energy, ability and untiring devotion to it the company are greatly indebted for its successful prosecution—to allow careless or improvident expenditures; or from any want of effort to carry out a system of strict and rigid economy.—Losses and somewhat unprofitable expenditures to some extent inevitably attend all like operations.—If such have occurred on our own line they are of very limited amount, and are nothing, comparatively, in making up the large outlay which we have found necessary. To account for this we must look to other causes. Something of this excess of expenditure may be accounted for by the unexpectedly high cost, during the construction of the road, of the elements which go to make up the aggregate amount. There has probably been no period, and there is now no prospect that one will soon again occur, when the prices of provisions, materials and labor have ranged so high as in years when the great body of our work was done, 1846, '47, and summer of '48. These prices pressed upon the contractors, and through them upon the company.

Another portion of this excess arises from the time consumed, and comes to us in the shape of a large amount of interest paid and to be paid to stockholders and others, for use of capital while unproductive.

The cost of the road should be put as high as \$2,584,143, which includes the real estate mentioned. This makes the cost of the road a trifle over \$48,000 per mile. The capital stock paid in amounts to \$1,153,379, leaving a balance of indebtedness of \$1,140,764.

The Directors express the opinion that the character of the work upon this road will compare favorably with that of any road in the country, in proportion to the amount of work actually done upon it. We quote the following interesting details:

"The masonry is of the most durable and substantial kind. Nothing less would sustain the heavy weight with which much of it is necessarily loaded. All except a few small culverts is built wide enough for a double track.

The bridging is on the most approved plans; and the bridge across the Connecticut, when completed will be a structure of which any corporation might be proud; and the sufficiency of which no person who may have occasion to use it will doubt.

The superstructure is a 60 lb. rail laid on chestnut sleepers of full size and thickly set, to give solidity to the track.

The depot buildings, without designing to be extravagant, have been intended to be such as would be likely to furnish at the different points the accommodation to be required hereafter, as well as at the present time.

The road furniture, it is hardly necessary to say, is not inferior to that in use on any other road.

In all the details of building and furnishing, we have had in view permanent future use, and a large business.

The difference in expense of construction between a well built and a half built road, might be very considerable; but if saved, it might turn out in the end to be a present saving at a larger future loss. The maxim that "what is worth doing at all is worth doing well," applies we think no where with more force than in the building of railroads. To account, however, mainly for our expenditure, we must look to the character of the country over which our line is laid. It needs not the computations of an Engineer to satisfy any one who has passed over it of its severity. The amount of work which has been done on the entire line is as follows:

Earth excavation.....	3,926,000 yards.
Rock do.....	318,000 "
Loose rock.....	20,000 "
Total.....	4,294,000 "

Masonry..... 65,530 yards, an amount of work which exceeds, in proportion to the length of the road, the average amount of work on any road in New England, not excepting the Western.

But notwithstanding the severity of the work, and the large amount expended, it will be found, on comparison, that the amount, with all the additions of discount and interest, neither exceeds the cost of other roads on important routes, nor is such as to preclude the reasonable expectation of satisfactory returns to the stockholders.

#### OFFICERS OF THE CORPORATION FOR THE ENSUING YEAR.]

Directors.	
Thomas M. Edwards, Keene,	
Thomas Thatcher, Boston,	
Hiram Hosmer Watertown,	
Salma Hale, Keene,	
Benjamin F. Adams, Keene,	
Ephraim Murdock, Jr. Winchendon,	
George Huntington, Walpole.	
President:	
Thomas M. Edwards.	
Clerk:	
Benjamin F. Adams.	
Treasurer:	
Charles J. Everett.	

#### Northern Railroad of New Hampshire.

There is quite an overhauling of matters going on in many of the New England roads. The annual meeting of the directors of the Northern railroad of New Hampshire was a stormy affair. The old board of Directors, except the President, gave way to a new set, under the cry of "economy and reform." Of 20,027 votes thrown for directors, Mr Nesmith, now President of the road, had 20,011. It is now composed of the following gentlemen: Geo. W. Nesmith, of Franklin, John R. Brewer, of Boston; Francis N. Fisk, of Concord; Geo. A. Kettell

of Charlestown; Josiah B. French, of Lowell; W. J. Walker, of Boston; Timothy Kendrick, of Lebanon.

The Report of the Directors has been published. We gather from it the following facts:

Length of main line.....69½ miles.  
Length of Bristol branch.....12½ "

Total.....81½ "

Cost of the road \$2,766,500, or at the rate of \$34,000 per mile.

Cost of the main line \$2,530,500, or at the rate of \$36,400 per mile.

The net earnings for the last financial year were.....\$408,455  
Expenses and interest.....241,378

Net earnings.....\$167,377  
Balance of debt \$129,978.

Dividend in November, 1848, 3½ per cent.

The stockholders voted to apply the balance of the earnings toward the payment of the debt.

The stock of the road went down last week from 80½ to 78 and 78½. This road was built in too much haste. In passing over it last year we were surprised to see a cheap quality of hemlock cross ties or sleepers laid upon the road.

It is a sad mistake for directors to hurry a road into use before it can be properly finished and equipped.

#### Concord Railroad.

The choice of Directors of this road took place last week. The following gentlemen were elected Directors:

Ira Spaulding, Nashua.
C. H. Peaslee, Concord.
Robert Read, Manchester.
R. McGaw, Merrimack.
Josiah Stickney, Boston.
Uriel Crocker, "
Edward Raymond, "
Ira Spaulding is President.
N. P. Lovering, Treasurer.
J. H. George, Clerk.

The capital stock of this company is \$1,350,000.

The length of the line 34 miles. The road and equipment we suppose therefore must have cost about \$40,000 per mile, including a double track. The State of New Hampshire does not require any returns from railroad companies, and we are not well informed as to the condition of this road. It divided 10 per cent. in 1848, and is regarded as one of the best roads in New England. The stock has been as high as 30 and 35 per cent. above par during the last four or five years, and now sells for more than twenty per cent. advance. We give below a statement of its receipts, expenditures, net income and dividends for the last five years.

	Receipts.	Expen.	Net income.	Div.
1844.....	\$139,080	\$65,106	\$73,913	\$66,315
1845.....	181,842	82,938	98,913	97,500
1846.....	228,479	135,054	93,424	80,000
1847.....	290,228	176,453	113,775	100,000
1848.....	311,326	180,697	130,638	120,000

#### Peterboro' and Shirley Railroad.

The annual meeting of the Stockholders of the Peterboro' and Shirley Railroad took place a few days since, and the following gentlemen were elected Directors.

Samuel Adams, Townsend.
S. K. Ames, Peterboro'.
D. Needham, Groton.
D. F. McCillery, Boston,
Stephen Thayer, New Ipswich.
George Elliot, Mason.
George Taft, "

## Railway Share List,

ON A PAR OF \$100 ACCORDING TO THE LATEST SALES.—CORRECTED EVERY WEDNESDAY.

NAME OF COMPANY.	Length of line.	Length of branches.	Miles finished.	Cost of road and equipment.	Cost per mile.	Capital stock paid in.	Debit more than surplus.	Rating grade.	Earnings 1848.	Expenses 1848.	Net earnings 1848.	Rate of dividend in 1848.	Price of shares.	Remarks.
Atlantic and St. Lawrence	146	...	36	In progress	\$.....	.....	.....	..	.....	.....	.....	.....	78 a 81	
Androscoggin & Kenneb.	55	...	6	In progress	\$.....	.....	.....	..	.....	.....	.....	.....	70	
Albany and Schenectady	16 $\frac{1}{2}$	...	16 $\frac{1}{2}$	\$1,606,196	100,000	.....	.....	..	.....	.....	.....	1 5-9	84 a 85 $\frac{1}{2}$	
Auburn and Rochester	78	...	78	2,644,520	34,000	.....	.....	..	175,922	.....	.....	8	86 a 87	
Auburn and Syracuse	26	...	26	1,125,886	43,300	.....	.....	..	454,721	.....	.....	2 9-10	79 a 80	
Attica and Buffalo	31 $\frac{1}{2}$	...	31 $\frac{1}{2}$	821,315	26,000	.....	.....	..	172,185	.....	.....	4 $\frac{1}{2}$	.....	
Alleghany Portage	36	...	36	.....	.....	.....	.....	..	150,959	.....	.....	.....	Leas'd to Western railroad.	
Albany and W. Stockb.	38 $\frac{1}{2}$	...	38 $\frac{1}{2}$	1,924,701	50,000	.....	.....	..	.....	.....	.....	.....	.....	
Annapolis and Elkridge	21	...	21	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Bangor and Oldtown	11 $\frac{1}{2}$	...	11 $\frac{1}{2}$	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Boston and Lowell	25 $\frac{1}{2}$	11	27 $\frac{1}{2}$	2,013,687	73,200	1,800,000	.....	10 up, 30 down.	461,335	268,707	192,631	8	118	
Boston and Maine	74 $\frac{1}{2}$	5	79 $\frac{1}{2}$	3,571,832	45,000	3,249,804	249,715	47 $\frac{1}{2}$	511,627	264,534	247,891	8 $\frac{1}{2}$	101 a 102	
Boston and Worcester	41 $\frac{1}{2}$	22	66 $\frac{1}{2}$	4,930,000	74,700	1,500,000	460,000	40	716,284	406,303	310,080	8 $\frac{1}{2}$	106 a 107 $\frac{1}{2}$	
Boston and Providence	41	6 $\frac{1}{2}$	47 $\frac{1}{2}$	3,031,106	63,800	2,893,300	26,878	37 $\frac{1}{2}$	354,375	183,361	170,013	6 $\frac{1}{2}$	91 a 91 $\frac{1}{2}$	
Bost., Concord and Mont.	90	...	38	In progress	\$.....	.....	.....	..	.....	.....	.....	.....	82 a 85	
Berkshire	21	...	21	600,000	28,500	.....	.....	..	.....	.....	.....	7	.....	
Buffalo and Niagara	22	...	22	250,396	11,500	.....	.....	..	60,014	.....	.....	6 1-3	.....	
Buffalo and Black Rock	3	...	3	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Baltimore and Susqueh'a.	36	...	36	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Beaver Meadow	26	...	26	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Buck Mountain	26	...	4	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Baltimore and Ohio	178	...	31	13,136,940	61,900	.....	.....	..	1,468,828	805,530	663,198	.....	40 a 41	
Washington Branch	3	...	3	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Frederick Branch	3	...	3	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Calais and Baring	3	...	3	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Concord	34	...	34	.....	.....	1,350,000	.....	..	311,326	180,699	130,639	.....	122	
Cheshire	54	...	54	2,584,143	48,000	1,453,379	1,140,764	60	.....	.....	.....	.....	72	
Connecticut and Passump.	115	...	40	.....	.....	.....	.....	..	.....	.....	.....	.....	85	
Connecticut River	50	2	52	1,589,184	30,500	1,234,970	426,013	32	165,242	95,658	69,583	8	97	
Cape Cod Branch	28	...	28	587,116	20,900	343,000	217,395	40	.....	.....	.....	.....	62	
Corning and Blossburgh	...	...	40	.....	.....	.....	.....	..	18,069	.....	.....	.....	.....	
Cayuga and Susquehanna	29	...	29	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Camden and Amboy	61	...	96 $\frac{1}{2}$	3,200,000	33,000	.....	.....	..	.....	.....	.....	.....	136 a 140	
Trenton Branch	6 $\frac{1}{2}$	...	96 $\frac{1}{2}$	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
New Brunswick Br.	29	...	82	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Columbia	82	...	9	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Camden and Woodbury	9	...	52	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Cumberland Valley	26	...	26	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Carbondale & Honesdale	12	...	12	150,000	13,500	.....	.....	..	.....	.....	.....	.....	.....	
Chesterfield	9 $\frac{1}{2}$	...	9 $\frac{1}{2}$	195,867	15,919	.....	.....	..	.....	.....	.....	.....	.....	
City Point	191	...	191	3,222,289	16,800	.....	.....	30	516,252	266,450	250,226	.....	80	
Central of Georgia	63	...	36	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Central of New Jersey	3 $\frac{1}{2}$	...	3 $\frac{1}{2}$	114,224	35,100	72,990	41,234	39	.....	.....	.....	.....	.....	
Dorchester and Milton	25	...	25	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Detroit and Pontiac	54	19 $\frac{1}{2}$	73 $\frac{1}{2}$	.....	.....	.....	.....	40	.....	.....	.....	8	104	
Eastern	22 $\frac{1}{2}$	...	22 $\frac{1}{2}$	421,574	18,700	263,746	160,958	55	.....	.....	.....	.....	.....	
Essex (Salem to Law.)	33	...	33	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Erie and Kalamazoo	42	...	42	1,145,982	27,300	1,050,000	83,177	45	184,344	109,390	74,953	7 $\frac{1}{2}$	86	
Fall River	49 $\frac{1}{2}$	61	56	2,945,630	52,300	2,735,910	67,504	..	486,265	286,046	200,219	8 $\frac{1}{2}$	114 $\frac{1}{2}$	
Fitchburgh	23	...	23	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Franklin	21	...	21	283,917	13,500	.....	.....	..	.....	.....	.....	.....	.....	
Greensville and Roanoke	6	...	6	.....	.....	.....	.....	..	.....	.....	.....	.....	88 a 90	
Germantown Branch	96	...	96	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Gaston and Raleigh	171	...	39	.....	.....	.....	.....	40	477,052	267,173	209,879	.....	121	
Georgia (Augusta to A'ta)	37	...	37	.....	.....	.....	.....	..	.....	.....	.....	.....	88 a 90	
Athens Branch	62	...	62	.....	.....	.....	.....	17	.....	.....	.....	.....	104 a 105	
Harrisburg and Lancaster	74	...	74	.....	.....	.....	.....	..	.....	.....	.....	.....	86 $\frac{1}{2}$	
Hartford and New Haven	31 $\frac{1}{2}$	...	31 $\frac{1}{2}$	818,983	26,500	.....	.....	..	.....	.....	.....	.....	.....	
Housatonic	10	...	10	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Hudson and Berkshire	13	...	13	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Hazleton and Lehigh	6 $\frac{1}{2}$	...	6 $\frac{1}{2}$	252,680	38,900	.....	.....	55	.....	.....	.....	.....	.....	
Jackson and Brandon	12 $\frac{1}{2}$	...	12 $\frac{1}{2}$	283,248	22,650	.....	.....	45	.....	.....	.....	.....	85	
Lexington and W. Camb.	98 $\frac{1}{2}$	...	98 $\frac{1}{2}$	2,173,646	22,100	.....	.....	..	.....	.....	.....	.....	21 $\frac{1}{2}$ a 21 $\frac{1}{2}$	
Lowell and Lawrence	23	...	23	221,000	9,700	.....	.....	..	.....	.....	.....	.....	.....	
Long Island	3 $\frac{1}{2}$	...	3 $\frac{1}{2}$	33,673	10,300	.....	.....	..	.....	.....	.....	.....	.....	
Lockport and Niagara	16	...	16	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Lewiston	23	...	23	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Lykens Valley	50	...	50	474,137	9,482	.....	.....	..	.....	.....	.....	.....	.....	
Little Schuylkill	29	...	29	450,000	15,600	.....	.....	..	.....	.....	.....	.....	.....	
Louisa	84	...	84	1,513,402	18,000	.....	.....	..	.....	.....	.....	.....	.....	
Lexington and Frankfort	8	...	8	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Little Miami	45	...	45	.....	.....	.....	.....	80	.....	.....	.....	.....	100	
Machiasport	36	...	36	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Morris and Essex	25	...	25	.....	.....	.....	.....	..	.....	.....	.....	.....	136	
Mauch Chunk and R. Run	7	...	7	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Mine Hill & Sch. Haven	21	...	21	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Mount Carbon	6	...	6	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Mt. Carbon & Pt. Carbon	67	...	67	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Mill Creek	.....	.....	.....	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	
Montgomery & W. Point	.....	.....	.....	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	



ON A PAR OF \$100 ACCORDING TO THE LATEST SALES.—CORRECTED EVERY WEDNESDAY.

NAME OF COMPANY.	Length of line.	Length of branches, miles in-cluded.	Cost of road and equip-ment.	Cost per mile.	Capital stock paid in.	Debts more than sur-plus.	Ruling grade.	Earnings 1848.	Expenses 1848.	Net earn-ings 1848.	Rate of div-idend in 1848.	Price of shares.	Remarks.
Madison and Indianapolis	86	86										110	
Mad River and Lake Erie	102	102											
Mansfield and Sandusky.	56	56	\$1,106,121	19,700									
Michigan Central.....	221	221											
Michigan Southern.....	70	70											
Tecumseh Branch.....	10												
Macon and Western.....	101	101					30						
Mississippi.....	30	30										48a48½	
Nashua and Lowell.....	14½	14½	525,063	36,200	525,000		13	169,187	109,599	59,588	10		
Northern (Ogdensburg)....	12	12	In progress.										
" (Concord to Leb'n.).....	69½	69½	2,762,500	34,000		129,978		408,455	241,370	167,277		77½	
Bristol Branch.....	12½	81½											
N. Bedford and Taunton..	20	20	499,065	24,990	400,000		40	136,151	96,220	39,225	6	30	
Norfolk County.....	26	26	621,488	23,900	414,250		35					86½	
N.Y. & N. Haven (14 mls. Har RR)	62	28											
New Haven Canal.....	7	66	2,187,829	33,100			32	218,073	170,297			40	
Norwich and Worcester..	80½	80½	3,579,567	44,600								56 a 56½	
New York and Harlem....	200	200										64	
New York and Erie.....	29	29										108 a 110	
New Jersey.....	17	17											
Newcastle & Frenchtown	5½	5½											
N. Orleans and Carrollton	37½	71	2,080,903	46,200	1,601,415	683,648	40	227,350	139,592	87,757	6½	78a79	
Old Colony.....	41	41											
Oswego and Syracuse.....	51	51	1,350,000	26,400							6	96½	
Portland, Ports, and Saco.	12	12	208,311	17,300									
Peterboro' and Shirley....	18½	18½	447,755	24,000			66						
Pittsfield and N. Adams..	43½	43½	1,873,895	43,000		573,058	26	193,844	83,889	109,954		82½	
Providence and Worcester	16½	16½									10	110a111	
Paterson and Hudson R....	28	28										130 a 140	
Philadelphia and Trenton	97	97	6,173,851	66,000				638,142	382,608			54	
Philad. Wilm. and Balt..	6	6											
Philadelphia City.....	17	17											
Philad. Germ. and Nor....	93	93										35 a 36	
Philad. phia and Reading	2	2											
Penn Township.....	59	59	946,361	16,040				163,092	87,131				
Petersburg.....	4½	4½											
Ponchartrain.....	28	28											
Pt. Hud., Jack. and Clint.	25	25	661,910	26,400									
Rensselaer and Saratoga..	15	15											
Ramapo and Paterson.....	75½	75½	1,474,004	19,459				206,855	100,568				
Rich. Fred. and Potomac..	22	22	877,484	39,886									
Richmond and Petersburg	28	28											
Sullivan.....	11½	11½	255,748	22,200	135,935	128,075	35					33½	
South Shore.....	13	13	246,659	19,000	216,829	29,189	40						
Stony Brook	50	50										53	
Stonington.....	40	40	948,372	23,700									
Saratoga and Washington	53	53	1,968,036	37,060				677,671				120 a 121	
Syracuse and Utica.....	20½	20½	659,668	32,100				47,025					
Schenectady and Troy...	22	22	331,036	15,000				57,018					
Saratoga and Schenectady	2	2											
Summit.....	14	14											
Schuylkill Valley.....	22	22											
Shamokin.....	4	4											
Swatara.....	76½	76½	1,519,110	20,460									
Seaboard and Roanoke..	136	242	5,943,678	24,500				800,073	308,802	401,271			
S. Carolina Main Stem	68½	37½											
Columbia Branch.....	26	11	305,085	27,600	250,000		35	108,101	90,485	17,615			
Camden Branch.....	43½	43½	974,865	22,400				218,301					
Sangamon and Morgan..	6	6	273,625	45,900				60,055					
Taunton Branch.....	4½	4½	69,322	14,999									
Tonawanda.....	26	26											
Troy and Greenbush.....	44	44											
Tuckahoe & James River	78	78	3,161,688	40,500				795,239			10	122a123	
Tallahassee and Port L..	69	69					55					42	
Tuscumbia and Decatur.	121	69	In progress.									49½	
Utica and Schenectady...	46	46											
Vermont and Mass.....	117½	117½	7,975,452	67,700			83	1,332,068			8	106½a107	
Vermont Central.....	2	2	41,515	15,000									
Vicksburg and Clinton..	45	45					48					50a51½	
Western.....	13	13											
West Stockbridge.....	20	20											
Worcester and Nashua..	26	26											
Wrightsv. York & Gettys.	10	10											
Whitehaven and Wilkes..	21	21											
Williamsport and Elmira	32	32	509,415	15,919									
Westchester Branch.....	163	163											
West Feliciana.....	10	10											
Winchester and Potomac.	100	100	In progress.										
Wilmington and Weldon	21	21											
Westminster Branch.....													
Western and Atlantic..													
York and Maryland Line.													

## AMERICAN RAILROAD JOURNAL.

Saturday, June 9, 1849.

**Boston and Worcester and Western R. R.**

Three years ago last winter, we were present at several meetings, in Boston, of the Stockholders of the Boston and Worcester Railroad, and the Stockholders of the Western Road, called for the purpose of considering certain propositions that had been made to effect an union of the two companies.

The Directors and Shareholders of the Western road were dissatisfied with the terms charged by the Boston and Worcester railroad for transporting passengers and freight brought to it by the Western road.

A spirited discussion was had among the shareholders in both companies, and no little feeling elicited by the friends of the respective roads. A very general desire was felt in Massachusetts at that time in favor of a consolidation of the two companies into one, to be called the *Boston and Albany Railroad*.

The shareholders in the Western road were willing at that time to make it a common stock, allowing the shareholders in the Boston and Worcester five shares for every four in the Western road, or in other words, calling the stock of the Boston and Worcester road worth \$120, and the stock of the Western \$100 per share.

This offer was rejected by the stockholders of the Boston and Worcester road, after full discussion, by a decisive vote.

Addison Gilmore, Esq., of Boston, was called to the head of the Western railroad, soon after these negotiations terminated, and under his guidance, as President, the road has continued from that time to this. Some temporary arrangement was soon effected between the two companies, and the business has been conducted since then, without any disagreement to our knowledge.

The stock of these two companies has fluctuated considerably in the market during the last three years, but on Thursday of last week, the stock of each stood at \$107 in Boston market, and they do not materially vary in price at the present time, as will appear by our share list.

It seems strange to us that no comments have been made upon this matter by any of the Boston presses. We propose to examine into this matter by and by.

The impression now prevails that the two companies will be consolidated, and that a movement to this effect is in progress. Mr. Hale retired from the Direction of the Boston and Worcester road the present week. He has held the situation of President of the Corporation for many years, from the time of its organization till now, according to our recollection.

Since writing the above we have received an account of the annual meeting of the company in Boston on Monday last for the choice of Directors. The directors submitted their report, by which it appears that in addition to the amount of the capital stock paid in, the claims upon the company up to the present time, including the expense of running the road, amount to \$460,000. If we understand the report, the company has used its earnings as received, and the cost of the road represents the sum of \$4,960,000 on the 31st May, 1849.

Messrs. Hale, Henshaw, Lowe & Hathaway, of the old board, go out this year, and are succeeded by Messrs. William Parker, Thomas Hopkinson, Isaac Emery and J. M. Edmonds, who with Messrs. Daniel Denny, Nath. Hammond, T. C. Leeds, B. F. White and G. B. Blake, constitute the new board.

Some dissatisfaction was expressed by the stockholders committee, that the company should have been suffered to get into debt. A committee was appointed to report a proper testimonial to Mr. Hale for his services to the company, over which he has presided for eighteen years.

In view of the facts before given, we are impelled to make the inquiry, when should the construction account of a railroad cease? If railroad directors are to keep constantly charging off to construction, the outlays for repairs and equipment, and divide the entire amount of earnings, above the mere expenses of running, the cost of a road can never be ascertained.

In our view the proper course is, to apply a sufficient portion of the net earnings of a road to keep it in repair. Every other policy must prove disastrous in the end. An inflated price of shares invites investment from parties little conversant with railway management, who, in time, find themselves possessed of a depreciated stock, from facts being brought to light, of which they had no knowledge, and over which they have no control.

We ask the directors and shareholders of the Western railroad to look carefully into this matter.

**Iron Trade.**

The advices from Europe continue to show a decline in the price of iron. Scotch pig has touched a lower point than it reached in January last.

Parties in this country who have stock on hand, are disposed to run it still lower, in the hope of checking importation. Rails sold at £5.

**Whitehall Mining Company.**

The first annual meeting of the shareholders of the Whitehall Mining company took place at the mines on the 1st day of June instant.

Commodore Stockton submitted his report, as Treasurer of the company, showing the operations of the company to May 31, 1849 inclusive. The report was submitted to a committee of three of the Directors. T. A. Dexter, Esq., of Boston, on behalf of the committee submitted a report, a copy of which has been placed in our hands. We have space only for a brief summary of the report in this day's Journal.

From this report we learn that the condition of this company on the 31st of May, 1849, was as follows viz:

Gold raised, and already coined at the U. S. Mint.....	\$36,652 01
In specimens.....	5,158 50
	\$41,810 51
Cash received from other sources.....	10,000
	\$51,810 51
Expences incurred to May 31, 1849, for buildings, machinery, mules, &c. salaries and expenses.....	\$29,362 09

Balance in Treasury.....\$22,448 42

The shareholders voted to make a dividend of \$5 per share on 3,000 shares, or \$15,000 in amount. This will leave a balance in the treasury of \$7,448 42. The dividend is payable at Philadelphia on the 12th of June current.

This company has been in operation a few months only, and its machinery and erections are all new, having been only a short time in use at the mines.

This report certainly shows a most gratifying result to the shareholders, and we shall not be surprised to find that the superior skill and machinery now employed in working vein mines in Virginia, may lead to a complete revolution of opinion as to

the comparative value of vein and deposit mines of gold.

Our readers will recollect a very interesting account of the mode of working this Whitehall mine in our paper of April 21, 1849.

**Utica and Schenectady Railroad.**

The following gentlemen were chosen Directors for the present year at the recent annual meeting of the Utica and Schenectady railroad company.

Erastus Corning, Nicholas Devereux, Nathaniel S. Benton, A. C. Paige, John Townsend, James Hooker, T. W. Olcott, M. T. Reynolds, G. G. Howland, J. P. Phoenix, E. T. T. Mather, Livingston Spraker and John Ellis.

**Indiana.****JEFFERSONVILLE RAILROAD.**

It is almost impossible in our Journal to keep pace with the rapidity with which railroads in the west are projected, and pushed towards their completion. The homogeneous nature of its territory, unbroken by high mountain ranges, render the construction of railroads there an easy task when compared with the rugged features of many of the Eastern States, while the soft and yielding character of its soil unfitted for ordinary roads, render these works indispensable to those living at a distance from the great water courses. These causes are leading to the construction of railroads in every part of that great section. The west is to be the great theatre of railroad construction for time to come.—We have no doubt too, but that the western roads are to be the best paying roads in the country.—The immense surplus of products of this section are of a bulky character, and must pay a large freight, in transportation, while its inhabitants must continue to import over their road for a long time to come most of the necessities of life that their farms do not furnish them. The road from Madison to Indianapolis is one of the highest priced roads in this country, and the character which this railroad sustains abroad, must do much for the credit of similar undertakings in this state.

The project of a railroad from Jeffersonville on the Ohio, opposite Louisville, to connect with this road at Columbus, is undoubtedly new to many of our readers. We ourselves were not aware that such progress had already been made towards its construction, and are happy to give a part of a letter from an intelligent gentleman residing in that state, showing the progress already made in this new work:

"It is only little more than twelve months since our engineers were put in the field, and preliminary surveys made between Jeffersonville and Columbus, a distance of 66 miles, at which place we intersect the Madison and Indianapolis railroad.—In October last, the grubbing, clearing and graduation of 27 miles were put under contract and will be ready for the superstructure early in the summer. 1200 tons T rails have been contracted for, and will arrive during the fall.

Our surveys show that the maximum grade going north need not exceed 26 feet per mile, and coming south only 23 feet per mile.

The 27 miles under contract extend beyond the range of knobs or high lands, usually found between the Ohio and the waters flowing into White river. The summit of this range of high land is crossed by our line at an elevation of 173 feet above high-water mark at the head of the Falls of the Ohio, the point of crossing this elevation is 23 miles from Jeffersonville, it is a remarkable depression in the main ridge, of easy access both from the south



and north; on each side of this gap the hills rise to a great height. 8 miles west, the summit is 567 feet; on the east, they rise more gradually. This gap is not one mile from a straight line; and the road will only be about 2 miles longer than a straight line from Jeffersonville to Columbus."

#### Money and Business.

There is a general apathy apparent in all branches of business. Money is becoming abundant, from the absence of ordinary calls for new transactions.

The railway share market has shown great changes the last few weeks, as will be seen by comparing our share list. In three weeks the stock of the Boston and Maine has decl'd from 105½ to 101 a 102

Vermont Central	"	"	53½ to 49½
Vermont and Mass.	"	"	45½ to 42
Old Colony	"	"	80½ to 78 a 79
Long Island	"	"	23½ to 21½
Albany and Sch'dy	has adv'cd from	82 to 85	
Boston and Lowell	"	"	116 to 118
Eastern	"	"	99½ to 104
N. York and Erie	"	"	61 to 64
Utica & Schenectady	"	"	120 to 123

Many other changes will be seen by referring to the share lists.

#### Locomotive Engines.

Railway companies who are in want of railroad equipment, will please look to our advertising list, embracing as it does several of the leading shops in the United States. The improvement of the locomotive engine within the last few years, has surpassed that made in any other branch of mechanical science. Every company should now look to it that they secure the best possible equipment to their roads. There is as much difference in locomotive engines as in horses. The latest improvement and the best workmanship should be secured. In this connection we beg leave to call attention to a new advertisement in to-day's paper of Messrs. A. & W. Denmead & Son, of Baltimore, who are now ready to receive orders for locomotive engines and railway machinery, in addition to other branches of manufacture.

#### To Railroad Engineers.

We announced our willingness to publish regularly the address of Engineers, in our paper under date of 10th of March last.—Several engineers have adopted the suggestion. The advantage is so obvious to engineers themselves, and so satisfactory to companies seeking their acquaintance, that we are induced to renew the suggestion. Our plan has been the means already of important engagements to several parties; and will serve to keep up more closely the acquaintance of engineers.

We therefore renew the offer to insert the names of engineers and their address for *two dollars* a year from subscribers, and *five dollars* a year to others not taking the Journal.

#### The Danville Railroad.

The City Council of Richmond has appointed a Committee to confer with the Board of Public Works, for the purpose of requesting the Board of Directors of the Danville railroad company to call a meeting of the stockholders, to reconsider the resolution by which the Board was instructed to adopt the most direct route between Richmond and Danville. The importance of bringing the road as near as possible to Lynchburg, with a view of connecting it by a branch road with our great south-western improvement, is now confessed by all in Richmond. It is believed that a route farther north than the one which was rejected, may be found and which will bring the road still nearer to Lynchburg. We presume there will be no objection to the call of the meeting, and we trust the resolution, referred to, will be reconsidered and the Board left at liberty to adopt such route as they think best.—*Virginia Paper.*

#### Explosion of Steam Boilers. No. 1.

Such are the tremendous and fearful results of the explosion of steam boilers, that it is highly desirable that the causes of these disasters should be known and understood, in order that they may be effectually guarded against, and prevented. Scarcely a week passes, that the public press does not announce an explosion, by which human life is sacrificed, and large amounts of property destroyed. Many scientific writers, without practical knowledge, and many practical engineers, some with, and others without, an intimate acquaintance with scientific principles, have written on the subject, with the aim of arriving at safe and satisfactory conclusions; yet, little has hitherto been done, but to wander in the maze of conjecture, and to erect hypotheses on suppositious premises; during the discussion, the evil continues unmitigated. One thing, however, is certain—whatever may be the original operating cause of these explosions, the immediate one is and must be, carelessness in some quarter or other. If the original cause be, as some suppose, the contact of water or gases with highly heated metals, then the deficiency of water in boilers must be that cause, and must be attributable to the carelessness of the engineer, or to his ignorance. If we suppose a boiler of the proper strength to be exploded by means of too great a pressure of steam, in such case, we necessarily arrive at a similar conclusion. If the boiler be too small for safely generating the required power, or too light, or too much worn, the owner must incur blame for permitting the use of such boilers, while the engineer incurs still greater blame, because without his aid, they could not be used at all. If the boiler is made of unsound materials, or if it is badly fabricated, the maker is culpable, because it is in his power to know whether his materials and work will or will not successfully stand the proper test. Our conclusion therefore is, that, let steam boiler explosions result from what cause they may, they are the results of carelessness or ignorance. We might cite a number of cases to prove the correctness of this opinion as tested by long experience; but will now allude to one only, which, in our opinion, is amply sufficient.

In a memorial submitted to Congress January 22, 1841, the following statement occurs: "The first steamboat which navigated Long Island Sound, (if your memorialist is correct in his recollection,) was the Fulton, commanded by Capt. Elihu H. Bunker, which was put on the route in the year 1815 or 1816, to run as a regular passage boat between the cities of New York and Providence. From about that time to the present, a period of some twenty-five years, a regular communication has been kept up between the two cities by means of steam navigation, and for a very large proportion of the time, daily each way. On this route there have been employed, for longer or shorter periods, most of them several years each, the following steamboats, viz: the Fulton, Connecticut, Chancellor Livingston, Washington, Benjamin Franklin, President, Boston, Providence, Rhode Island, Massachusetts, Lexington, Cleopatra, Narragansett, John W. Richmond, and Mohegan; making the number sixteen, besides several others which have run during longer or shorter periods." The memorial from which the above extract is made, was presented to Congress by the writer of this article, more than eight years since. During this period, steam navigation has been continued on this route, as before, sometimes between New York and Providence, and sometimes between the former city and Stonington. And in the whole

time, more than thirty-three years, and with some twenty or twenty-five different steamboats, no accident has ever occurred from the explosive power of steam, to the loss or jeopardy of life, limb or property. During the last ten or twelve years also, intercourse by steam navigation has been carried on, daily, by means of a number of steamboats, between the city of Boston and various ports in the State of Maine, with the same pleasing result.

And now permit us to inquire, what has given to travellers on these routes, such perfect safety and security, while hundreds on some other routes, have perished by means of steam boiler explosions?—There has been the same power used here as elsewhere, generated in the same manner, in boilers of the same materials, and applied in the same way. Besides, these boats have navigated L. Island, Sound and Massachusetts bay, as rough and tempestuous at times, as the broad Atlantic. How then have disastrous explosions been avoided? The reply is at hand, and, withal, very simple. The proprietors of these steam packets have considered safety as the first, greatest, and most important object.—Hence, they have ever been careful to have the best articles of steam boilers, etc., that could be obtained, and to employ none but the very best engineers; and to place the latter as to the business of their own peculiar departments, entirely beyond the control or interference of others. This is the great secret of safety, and the only one. Let this same system be adopted by every one having anything to do with steam boilers, and the entire evil will be corrected. At the same time, speculative suggestions and conclusions, serve to divert the attention from the true means of safety. And, farther, they very much increase the danger. Avaricious and dilatory habits, induce the desire to make money with as little expense and trouble as possible. Satisfy persons of such habits that all the danger of explosion results from a deficiency of water, and you have at once opened the way for the destruction of many lives. Light and insufficient boilers will be obtained, and old, worn and dilapidated ones, continued in use to save expense and room, and prevent trouble and delay. Ignorant men will be employed as engineers, merely because they can be had at lower wages.—And this will be done, and probably, in many instances, is now done, on the supposition that, however small, light, old or dilapidated a boiler may be, and however ignorant an engineer, if the latter does but know enough of his business to start and stop an engine, and has the bump of caution sufficiently developed to ensure a full supply of water, there can be no danger. So long as such vague notions have possession of the minds of people, and is fostered by the speculations of scientific men, and some engineers who are practical men, steam boilers will continue to be exploded, and life and property to be destroyed. A boiler maker should never suffer a boiler to go out of his hands, even at the solicitation of a purchaser, unless he knows it of fully sufficient capacity for the purpose intended, and of sufficient strength. No engineer should ever, on any occasion, for a single hour, consent to operate with any other. Every engineer should be thoroughly acquainted with his business, and be well known to others as being so. And every man who shall use an insufficient boiler, and employ any but a thoroughly qualified engineer, should be rigidly held responsible for all injuries that may be caused by explosions on his premises. Try this first—strike at the root of the evil—at known causes of explosions. If this fails, then explore the regions of speculative science for others. But let us not neglect the real for the imaginary. Let us not neglect known truths for far fetched hypotheses.

C. T. J.

**Albany and West Stockbridge Railroad.**  
The following is the list of Directors of the Albany and West Stockbridge railroad, chosen the present week.

M. T. Reynolds, T. W. Olcott, Tunis Van Vechten, Friend Humphrey, Lewis Benedict, John L. Pruyn, George Dexter, Samuel S. Fowler, William H. Tobey, Geo. Bliss, and Addison Gilmore.

### ENGINEERS.

- Arrowsmith, A. T.,**  
Buckfield Branch Railroad, Buckfield, Me.
- Berrien, John M.,**  
Michigan Central Railroad, Marshall, Mich.
- Clement, Wm. H.,**  
Little Miami Railroad, Cincinnati, Ohio.
- Fisk, Charles B.,**  
Cumberland and Ohio Canal, Washington, D. C.
- Felton, S. M.,**  
Fitchburgh Railroad, Boston, Mass.
- Ford, James K.,**  
New York.
- Floyd-Jones, Charles,**  
New York and Harlem Railroad Extension, Lithgow, Dutchess Co., N. Y.
- Gzowski, Mr.,**  
St. Lawrence & Atlantic Railroad, Montreal, Canada.
- Gilbert, Wm. B.,**  
Rutland and Burlington Railroad, Rutland, Vt.
- Grant, James H.,**  
Nashville and Chattanooga R. R., Nashville, Tenn.
- Harry, P.,**  
Binghamton, New York.
- Holcomb, F. P.,**  
Southwestern Railroad, Macon, Ga.
- Higgins, B.,**  
Mansfield and Sandusky Railroad, Sandusky City, O.
- Johnson, Edwin F.,**  
New York and Boston Railroad, Middletown Ct.
- Latrobe, B. H.,**  
Baltimore and Ohio Railroad, Baltimore, Md.
- Miller, J. F.,**  
Worcester and Nashua Railroad, Worcester, Mass.
- Morton, A. C.,**  
Atlantic and St. Lawrence Railroad, Portland, Me.
- McRae, John,**  
South Carolina Railroad, Charleston, S. C.
- Nott, Samuel,**  
Lawrence and Manchester Railroad, Boston.
- Reynolds, L. O.,**  
Central Railroad, Savannah, Ga.
- Roberts, Solomon W.,**  
Ohio and Pennsylvania Railroad, Pittsburgh, Pa.
- Robinson, James P.,**  
Androscoggin & Kennebec Railroad, Waterville, Me.
- Schlatter, Charles L.,**  
Northern Railroad (Ogdensburg), Malone, N. Y.
- Stark, George.,**  
Bost., Con. and Mont. R. R., Meredith Bridge, N. H.
- Trimble, Isaac R.,**  
Philad., Wil. & Baltimore Railroad, Wilmington, Del.
- Tinkham, A. W.,**  
United States Fort, Bucksport, Me.
- Thomson, J. Edgar.,**  
Pennsylvania (Central) Railroad, Philadelphia.

**Whipple, S.,**  
Civil Engineer and Bridge Builder, Utica, N. Y.

**Williams, E. P.,**  
Auburn and Schenectady Railroad, Auburn, N. Y.

**Williams, Charles H.,**  
Milwaukee, Wisconsin.

### BUSINESS CARDS.

**James Laurie, Civil Engineer,**  
No. 23 RAILROAD EXCHANGE, BOSTON, MASS.  
Railroad Routes explored and surveyed. Estimates, Plans and Specifications furnished for Dams, Bridges, Wharves, and all Engineering Structures.  
October 14, 1848. 6m\*

**James Herron, Civil Engineer,**  
OF THE UNITED STATES NAVY YARD,  
PENSACOLA, FLORIDA,  
PATENTEE OF THE  
**HERRON RAILWAY TRACK.**  
Models of this Track, on the most improved plans, may be seen at the Engineer's office of the New York and Erie Railroad.

**Cruse & Burke,**  
Civil Engineers, Architects and Surveyors,  
Office, New York State Institution of Civil Engineers,  
STATE HALL, ALBANY, N. Y.  
Drawings, specifications and surveys accurately executed. Pupils instructed theoretically and practically at a moderate premium.  
May 26, 1849.

**Dudley B. Fuller & Co.,**  
IRON COMMISSION MERCHANTS,  
No. 139 GREENWICH STREET,  
NEW YORK.

**To Railroad Companies.**  
—WROUGHT IRON WHEELS—  
SAFETY AND ECONOMY.  
**NORRIS' LOCOMOTIVE WORKS,**  
SCHENECTADY, NEW YORK,  
Are Manufacturing Wrought Iron Driving, Truck, Tender, and Car Wheels—made from the best American Iron. Address E. S. NORRIS.  
May 16, 1849.

**Large Wooden Pumps.**  
SEVERAL Large Wooden Square Pumps, of various sizes from 6 to 24 inches, and lengths from 10 to 25 feet, strongly bolted and strapped together with wrought iron; and used to great advantage on the Boston Water works; also two screw pumps each 25 feet long and 24 feet in diameter, are now for sale by the Boston Water Commissioners.  
For further particulars inquire at No. 119 Washington Street, Boston, or of E. S. CHESBROUGH, West Newton.  
June 8, 1849.

**Monument Foundry.**  
**A. & W. DENMEAD & SON,**  
Corner of North and Monument Sts.,—Baltimore,  
HAVING THEIR  
IRON FOUNDRY AND MACHINE SHOP  
In complete operation, are prepared to execute faithfully and promptly, orders for Locomotive or Stationary Steam Engines, Woolen, Cotton, Flour, Rice, Sugar Grist, or Saw Mills, Slide, Hand or Chuck Lathes, Machinery for cutting all kinds of Gearing, Hydraulic, Tobacco and other Presses, Car and Locomotive patent Ring Wheels, warranted, Bridge and Mill Castings of every description, Gas and Water Pipes of all sizes, warranted, Railroad Wheels with best faggotted axle, furnished and fitted up for use, complete  
Being provided with Heavy Lathes for Boring and Turning Screws, Cylinders, etc., we can furnish them of any pitch, length or pattern.  
Old Machinery Renewed or Repaired—and Estimates for Work in any part of the United States furnished at short notice.  
June 8, 1849.

**C. W. Bently & Co.,**  
PORTABLE Steam Engine and Boiler Manufacturers, East Falls Avenue, near Pratt St. Bridge, BALTIMORE, MARYLAND.

Their Engines are simple in their construction, compact and durable; they require no brick work in setting them, and occupy but a small space (a six horse power engine and boiler, standing on a cast iron plate of three by six feet.)

They also manufacture Major W. P. Williamson's new oscillating Engine; a superior article, combining cheapness and simplicity (one of which may be seen in operation at their shop.) Both of these engines are adapted to any purpose where power is required, and may be made of any capacity; and for economy in use of fuel are unsurpassed.

All kinds of machinery made to order. Steam Generators, Force Pumps, Wrought Iron Pipes and Fittings for Steam, Water, Gas, etc., constantly on hand.  
Baltimore, June 6, 1849.

### To Railroad Companies and Contractors.

**FOR SALE.**—Two Locomotive Engines and Tenders, at present in use on the Beaver Meadow Railroad, being too light for their coal trains, but well calculated for either gravel or light passenger trains.

They weigh, in running order, about 8 tons each—having one pair of driving wheels 4 feet diameter, 4 truck wheels 30 inches diameter, with cylinders 10 in. diameter, and 18 inches stroke of piston. Tenders on 4 wheels. Address **JAMES ROWLAND,**  
Pres't. Beaver Meadow Railroad & Coal Co., Philadelphia.

or, **L. CHAMBERLAIN, Sec'y,**  
at Beaver Meadow, Pa.  
May 19, 1849. 20tf

### Extension of the Baltimore & Ohio Railroad.

TO CONTRACTORS FOR GRADUATION AND MASONRY.

PROPOSALS are invited for the graduation and masonry of about 25 miles more of this road, beginning at a point some 64 miles west of Cumberland, and ending at a point about 13 miles west of Cheat river, embracing all the sections from No. 64 to No. 88, both inclusive. The graduation on nearly all of these sections will be heavy, and will include one Tunnel of considerable length and three short ones. There will be also two Viaducts of medium size.

Specifications and plans of the work will be ready for distribution to proposers by the 13th of June, prox., at the Company's office in Cumberland. The proposals will be addressed to the undersigned, and will be received up to Saturday, July 7th, inclusive, at the same place. Proposers are earnestly requested to examine the line closely before bidding, and to avail themselves of the ample means of information of the value of the work, which will be furnished them, as contractors from a distance, accustomed to more difficult excavations than those to be met with on this line, will otherwise be likely to make their estimates too high. The best testimonials will be required, and an energetic prosecution of the work will be necessary. The payments will be cash, with the usual reservation of one-fifth till the completion of the contract. By order of the President and Directors. **BENJ. H. LATROBE,**  
Baltimore, May 31, 1849. Chief Engineer.

### To Contractors.

**OHIO AND PENNSYLVANIA RAILROAD.**  
Proposals will be received at the office of the Ohio and Pennsylvania railroad Co., in the city of Pittsburgh, until SATURDAY, the 30th of JUNE, 1849, for the Grading and Bridging of the Railroad from the mouth of Big Beaver to the State line of Ohio, a distance of about twenty miles. Drawings and specifications of the work to be let may be seen at the office in Pittsburgh, during the week before the letting, on application to Solomon W. Roberts, Chief Engineer; and information may be obtained at any time at the office of Edward Warner, Resident Engineer of the Eastern Division, New Brighton, Beaver county, Pa. The work is well worthy of the attention of experienced and energetic contractors, and the line passes through a fertile country, and is easy of access at all points.

By order of the Board of Directors.  
**WM. ROBINSON, Jr., President.**  
Pittsburgh, May 21, 1849.



**IRON.**

**THE NEW JERSEY IRON CO'S WORKS AT** Boonton, are now in full operation, and can execute orders for Railroad Bars of any required pattern, equal in quality to any made in this country. Apply to  
J. F. MACKIE,  
Nos. 85 and 87 Broad St.  
New York, June 8, 1849.

**Iron.**

THE Works of the New Jersey Iron Company at Boonton, N. J., having been recently enlarged and put in good repair, the company are prepared to receive orders for Iron, which will be executed with dispatch; and they warrant their iron equal in quality and finish to any in this country.

1/2 Round and square, to 6 inches,  
1/2 Flat " " " "  
Ovals, half-ovals and half-round.  
Hoop, band and scroll iron.  
Nail plates, superior charcoal Horse shoe,  
Iron, sheet and Boiler iron,  
Tire iron for locomotives,  
Railroad spikes,  
Pig iron of superior quality for chilling,  
do, for foundry purposes.

For sale by JOHN F. MACKIE,  
85 & 87 Broad Street,  
Sole agent for the New Jersey Iron Co,  
June 9, 1849.

**American and Foreign Iron.****FOR SALE,**

300 Tons A 1, Iron Dale Foundry Iron.  
100 " 1, " " " "  
100 " 2, " " " "  
100 " " Forge " "  
400 " Wilkesbarre " "  
100 " "Roaring Run" Foundry Iron.  
300 " Fort " " "  
50 " Catocin " " "  
250 " Chikiswalungo " " "  
50 " "Columbia" "chilling" iron, a very superior article for car wheels.  
75 " "Columbia" refined boiler blooms.  
30 " 1 x 1/2 Slit iron.  
50 " Best Penna. boiler iron.  
50 " "Puddled" " "  
50 " Bagnell & Sons refined bar iron.  
50 " Common bar iron.

Locomotive and other boiler iron furnished to order.  
GOODHUE & CO.,  
64 South street  
New York.

**Railroad Iron.**

OF approved T patterns, weighing 56 to 60 lbs. per lineal yard, made by the best English manufacturers, and under our own specification and inspection. In store and to arrive. For sale by  
DAVIS, BROOKS, & CO.,  
68 Broad street.

New York, June 1, 1849.

The above will favorably compare with any other rails.

**Railroad Iron.**

100 Tons 2 1/2 x 1/2, - 30 Tons Railroad.

All fit to re-lay. For sale cheap by  
PETTEE & MANN,  
228 South St., New York.  
May 16, 1849.

**MANUFACTURE OF PATENT WIRE ROPE** and Cables for Inclined Planes, Standing Ship Rigging, Mines, Cranes, Tillers, etc, by  
JOHN A. ROEBLING, Civil Engineer,  
Pittsburgh, Pa.

These Ropes are now in successful operation on the planes of the Portage railroad in Pennsylvania, on the Public Slips, on Ferries, and in Mines. The first rope put upon Plane No. 3, Portage railroad, has now run four seasons, and is still in good condition.

**American Cast Steel.**

**THE ADIRONDAC STEEL MANUFACTURING CO.** is now producing, from American iron, at their works at Jersey City, N.J., Cast Steel of extraordinary quality, and is prepared to supply orders for the same at prices below that of the imported article of like quality. Consumers will find it to their interest to give this a trial. Orders for all sizes of hammered cast steel, directed as above, will meet with prompt attention.

May 28, 1849.

**SPRING STEEL FOR LOCOMOTIVES, TENDERS AND CARS.**—The subscriber is engaged in manufacturing spring steel from 1 1/2 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address  
J. F. WINSLOW, Agent,  
Albany Iron and Nail Works.

**Pig and Bloom Iron.**

THE Subscribers are Agents for the sale of numerous brands of Charcoal and Anthracite Pig Iron, suitable for Machinery, Railroad Wheels, Chains, Hollowware, etc. Also several brands of the best Puddling Iron, Juniata Blooms suitable for Wire, Boiler Plate, Axe Iron, Shovels, etc. The attention of those engaged in the manufacture of Iron is solicited by  
A. WRIGHT & NEPHEW,  
Vine Street Wharf, Philadelphia.

**Railroad Iron.**

**RAILROAD IRON & LOCOMOTIVE TIRES** imported to order, and constantly on hand, by  
A. & G. RALSTON,  
4 South Front St., Philadelphia.

**Railroad Iron.**

THE UNDERSIGNED ARE PREPARED TO contract for the delivery of English Railroad Iron of favorite brands, during the Spring. They also receive orders for the importation of Pig, Bar, Sheet, etc. Iron.  
THOMAS B. SANDS & CO.,  
22 South William street,  
New York.

February 3, 1849.

**Railroad Iron.**

THE MOUNT SAVAGE IRON WORKS, Alleghany county, Maryland, having recently passed into the hands of new proprietors, are now prepared, with increased facilities, to execute orders for any of the various patterns of Railroad Iron. Communications addressed to either of the subscribers will have prompt attention. J. F. WINSLOW, President  
Troy, N.Y.

ERASTUS CORNING, Albany.  
WARREN DELANO, Jr., N.Y.  
JOHN M. FORBES, Boston.  
ENOC PRATT, Baltimore, Md.

November 6, 1848.

**Railroad Iron, Pig Iron, &c.**

600 Tons of T Rail 60 lbs. per yard.

25 Tons of 2 1/2 by 1/2 Flat Bars.

25 Tons of 2 1/2 by 9-16 Flat Bars.

100 Tons No. 1 Gartscherrie.

100 Tons Welsh Forge Pigs.

For Sale by A. & G. RALSTON & CO.  
No. 4 So. Front St., Philadelphia.

**Railroad Iron.**

THE SUBSCRIBERS ARE PREPARED TO take orders for Railroad Iron to be made at their Phoenix Iron Works, situated on the Schuylkill River, near this city, and at their Safe Harbor Iron Works, situated in Lancaster County, on the Susquehanna river; which two establishments are now turning out upwards of 1800 tons of finished rails per month. Companies desirous of contracting will be promptly supplied with rails of any required pattern, and of the very best quality.

REEVES, BUCK & CO.,  
45 North Water St., Philadelphia.

March 15, 1849.

**Railroad Iron.**

THE Undersigned offer for sale 3000 Tons Railroad Iron at a fixed price, to be made of any required ordinary section, and of approved stamp.

They are generally prepared to contract for the delivery of Railroad Iron, Pig, Bar and Sheet Iron—or to take orders for the same—all of favorite brands, and on the usual terms.

ILLIUS & MAKIN.

March 29, 1849.

3m.13

**Railroad Iron.**

THE TRENTON IRON COMPANY ARE NOW turning out one thousand tons of rails per month, at their works at Trenton, N.J. They are prepared to enter into contract to furnish rails of any pattern, and of the very best quality, made exclusively from the famous Andover iron. The position of the works on the Delaware river, the Delaware and Raritan canal, and the Camden and Amboy railroad, enables them to ship rails at all seasons of the year. Apply to  
COOPER & HEWITT, Agents,  
17 Burling Slip, New York.

October 30, 1848.

**Iron Wire.**

**REFINED IRON WIRE OF ALL KINDS,** Card, Reed, Cotton-flyer, Annealed, Brim, Buckle, and Spring Wire. Also all kinds of Round, Flat or Oval Wire, best adapted to various machine purposes, annealed and tempered, straightened and cut any length, manufactured and sold by  
ICHABOD WASHBURN.

Worcester, Mass., May 25, 1849.

**WILLIAM JESSOP & SONS' CELEBRATED CAST-STEEL.**

The subscribers have on hand, and are constantly receiving from their manufactory,

PARK WORKS, SHEFFIELD,  
Double Refined Cast Steel—square, flat and octagon. Best warranted Cast Steel—square, flat and octagon. Best double and single Shear Steel—warranted. Machinery Steel—round. Best and 2d gy. Sheet Steel—for saws and other purposes.

German Steel—flat and square, "W. I. & S." "Eagle" and "Goat" stamps.

Genuine "Sykes," L. Blister Steel.

Best English Blister Steel, etc., etc., etc.

All of which are offered for sale on the most favorable terms by  
WM. JESSOP & SONS,  
91 John street, New York.

Also by their Agents—

Curtis & Hand, 47 Commerce street, Philadelphia.  
Alex'r Fullerton & Co., 119 Milk street, Boston.  
Stickney & Beatty, South Charles street, Baltimore.  
May 6, 1848.

**LAP-WELDED WROUGHT IRON TUBES**

FOR

**TUBULAR BOILERS,**

FROM 1 1/2 TO 8 INCHES DIAMETER.

These are the ONLY Tubes of the same quality and manufacture as those so extensively used in England, Scotland, France and Germany, for Locomotive, Marine and other Steam Engine Boilers  
THOMAS PROSSER,  
Patentee.

28 Platt street, New York.

**PATENT HAMMERED RAILROAD, SHIP & BOAT SPIKES.**—The Albany Iron Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscribers at the works will be promptly executed.

JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N.Y.

The above Spikes may be had at factory prices, of Erastus Corning & Co Albany; Menitt & Co., New York; E. Pratt & Co., Baltimore, Md.



INCORPORATED BY ACT OF PARLIAMENT

NOTICE is hereby given, that an ASSESSMENT OF ONE SHILLING AND THREE PENCE PER SHARE has been levied on the STOCK OF THE UPPER CANADA MINING COMPANY—one half thereof, or Seven Pence Halfpenny per share, being payable, at the office of the Company, in Hamilton, or to Messrs. W. & J. CURRIE, Agents, Wall St. New York, on the First Day of April next, and the other half on the First day of July next ensuing. By order,  
J. D. BRONDEGEE,  
Secretary U. C. M. C.  
Hamilton, 24th February, 1849. 121f

### Large Pumps.

THE Boston Water Commissioners offer for sale a large number and variety of Wooden Square Pumps, used in clearing excavations from water during the construction of the Aqueducts.

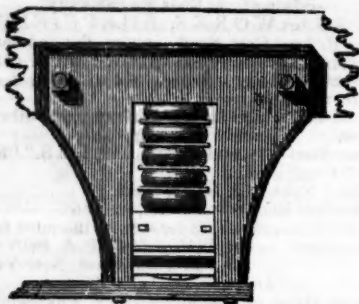
Also Two Large Screw Pumps, each 25 feet long and 2½ feet in diameter.

For further particulars, enquire at the office of the Water Commissioners, 119 Washington St., Boston, or of E. S. Chesbrough, West Newton.

May 19, 1849.

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### Patent India-rubber Springs.



FULLER & CO. beg that parties interested in the use of these Springs will not be misled by exparte statements, but will examine the actual Patents and judge for themselves.

The statements made by Messrs. Crane & Ray shall be treated seriatim.

They claim to have first introduced India-rubber Springs about two years since, whereas they were used by Fuller & Co. nearly four years ago.

They claim the exclusive right to use Springs. They have no right whatever; every spring they make is an infringement upon Fuller's patent, dated 1845. They claim the sole right to make India rubber, and apparently think because a species of India-rubber was patented some years since, that no person can make any other now. A patent was granted in January last to Messrs. Tyer & Helm for a new and improved kind of Vulcanized rubber which is used by Fuller & Co.

Fuller's springs it is needless to say are in very general use, although Messrs. Crane & Ray pretend that they know of only one or two instances. Fuller & Co. guarantee all parties who use their springs.

As to the Legal proceedings—an action has been commenced against one company for an alleged infringement of Goodyear's patent, but is being defended with every prospect of success. An action has also been commenced by Fuller & Co., against parties for an infringement of Fuller's patent, and this will be done in every case of violation.

In every case in which Fuller's spring has been applied, it has been pronounced superior to that made by Mr. Ray, and this fact induces Messrs. Crane & Ray to claim the right of using it. They attempt to lead the public from the real question at issue, by producing a Deposition as to Mr. Ray having tried to make a spring which Mr. Fuller did make and patent. If Mr. Ray did invent a spring in 1844, why did he not apply for a patent, and not wait until 1848, when his application was rejected!

Mr. Kneivitt has never stated that the springs were put on by him, which are referred to in Mr. Hale's article, but he does state that those springs are made according to Mr. Fuller's specification, and consequently are an infringement upon it. The article of Mr. Hale in the Boston Advertiser, quoted by Messrs. Crane & Ray, was followed immediately by a letter in the same paper, from Mr. Kneivitt, setting forth the facts of the case.

The springs referred to were put on by Mr. Ray before Mr. Kneivitt came to the United States; when he arrived he gave Mr. Ray notice not to proceed further in making or vending such springs; Mr. Ray then said he did not wish to infringe, and would not continue to do so, and he then contrived an India-rubber and Air spring which totally failed.

In the selection of their first agent, Fuller & Co. were particularly unfortunate, and their reason for advertising to it is simply that it may tend to throw light on subsequent transactions, and furnish a reply to the remark, "that this opposition was invited by their own delay in getting the thing to work." The individual referred to undertook the agency for Fuller's springs, and left Liverpool on the 1st January, 1847, furnished with a complete set of drawings, models, etc., and every necessary instruction to make arrangements respecting the supply of material, and to have it at work within the time limited by law; but from that hour to the present, not a single communication has been received from the said agent. Some of their models,

however, they have traced into the hands of parties now seeking to invade their rights, and by whom they understand they have been exhibited as specimens of their own invention.

The superiority of Fuller's spring is implied in the offer of the New England Car Co. to make springs upon his principle (now that a preference is given to the disc and plate form) and this notwithstanding the fact, that Fuller & Co. have a patent, and that Mr. Ray's application for one was rejected. The public can judge which company's course has been the most honorable, or whose statements are entitled to consideration.

Fuller's springs can be obtained of Mr. Kneivitt the Agent, at 38 Broadway New York, and of Messrs. James Lee & Co., 18 India Wharf, Boston.

May 26, 1849.

### Improvement for Lessening Friction on Railroads.

THE Improvement sometime since perfected for lessening the friction on rails, cars and engines, having been fairly tested, and found to possess all the advantages anticipated, is now presented to the notice of parties connected with railroad companies.

The article used is India-rubber, chemically combined with a metallic substance, in such a manner as to give it a remarkable degree of strength and durability, and the peculiar quality of not being affected by abrasion, or the extremes of either heat or cold.

The advantages derived from its application are briefly as follows:

1st, A sensible lessening of friction on the rails, and of wear and tear to the machinery of the locomotives and cars.

2d, A general benefit to the whole superstructure of the road, by the trains passing with an easier and less jarring action.

3d, A greater degree of comfort to the passengers, owing to the exemption from the usual loud and annoying rattling of the cars and engines.

4th, An increased speed to the trains, with the same power, arising from the uniform steadiness and decrease of friction to the rails, cars, etc.

And lastly, a material saving in the annual expenditure for repairs.

A drawing, illustrating the application of India-rubber to this purpose, will be found in the American Railroad Journal, under date of May 26, 1849.

The annexed certificate, among others in the hands of the patentee, will explain the nature of this improvement.

"J. ELNATHAN SMITH, Esq.,

Dear Sir: In relaying the New Orleans and Carrollton railroad, I applied Vulcanized India-rubber in the Chairs, under the joints of the rails, of 1-10 of an inch thick, with the happiest result. The road thus laid has been in constant daily use since August last, and I cannot perceive the least deterioration. The rubber acts admirably as a wedge, in the way I use it, as well as a perfect preventive of the battering down of the ends of the rails. It also makes the road unusually smooth—for in riding over it I have not been able to detect the joints; and I have had the assertion of several observers of such matters to the same effect. We are delighted with it here, and think it a very important simple, and cheap acquisition in the permanent maintenance of railroads.

The annexed sketch of the chair I use, will give an idea how the rubber acts as a wedge. They weigh 13 lbs. and are 7 inches square—are accurately cast to one size, and when in their places, ready for the rails, I place a piece of the rubber 1-10 of an inch thick thereon. The width of the base of the rail, and the length of the chair is 3½ by 7 inches. The rail is then forced in sideways, which, owing to there being but 1-16 of an inch space for 1-10 inch thickness of rubber, requires considerable pressure; consequently, the elasticity keeps the rail tight up to the clip of the chair A. I have closely observed the joints when the engine passed over them, but could not detect any depression of the rails separate from each other.

I find that the cost for the rubber will be about 7 cts. per joint, which for 21 feet rails, will be about \$35 per mile, exclusive of the patent right.

The rubber I use is of excellent quality, and made in pieces of about 20 to 30 yards long, and 25 inches wide, (1-10 of inch thick,) and weighs about 4 lbs. to the yard in length. I cut 7 pieces in the width, consequently 7 inches in length makes 7 pieces or 7 yards, weighing about 28 lbs., will give 252 pieces, or half a mile of road with 21 feet rails. I am respectfully yours,

JOHN HAMPSON,

Eng. New Orleans and Carrollton Railroad."

New Orleans, March 14, 1849.

Orders received and full information by

J. ELNATHAN SMITH, Patentee,

22 John street,

New York, May 26, 1849.

### Practical Geology and Metallurgy.

JAMES T. HODGE WILL EXAMINE AND report upon Mines and Ores; construct and conduct Blast-furnaces; and give important information as to the best localities for their establishment. To parties desirous of building the nearest furnaces to New York city he can furnish the control of ores, which will warrant the enterprise.

Office at No. 1 New St., corner of Wall. When absent from the city, inquiry may be made at the office of this Journal, 54 Wall St.

### P. S. DEVLAN & CO's Patent Lubricating Oil.

THE Subscribers invite the attention of Railroads, Steamboats, Machinists, etc., to the above article of Oil; they are prepared to supply it in any quantity. Certificates of its superiority over all other oils, from several of the largest Works and Railroads, can be seen at our office.

KENNEDY & GELSTON,  
5½ Pine street, New York,

Sole Agents for the New England States and State of New York. 1y14

### Railroad Instruments.

THEODOLITES, TRANSIT COMPASSES, and Levels, with Fraunhoffer's Munich Glasses, Surveyor's Compasses, Chains, Drawing Instruments, Barometers, etc., all of the best quality and workmanship, for sale at unusually low prices, by E. & G. W. BLUNT.

No. 179 Water St., cor. Burling Slip.  
New York, May 19, 1849.

TO RAILROAD COMPANIES AND MANUFACTURERS OF Railroad Machinery. The subscribers have for sale American and English Bar Iron, of all sizes; English Blister, Cast, Shear and Spring Steel; Juniata Rods; Car Axles, made of double refined iron; Sheet and Boiler Iron, cut to pattern; Tires for Locomotive Engines, and other railroad carriage wheels, made from common and double refined B. O. Iron; the latter a very superior article. The Tires are made by Messrs. Baldwin and Whitney, Locomotive Engine Manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE,  
a45 N. E. cor. 12th and Market sts., Philad., Pa.

NICOLL'S PATENT SAFETY SWITCH FOR Railroad Turnouts. This invention for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design. It acts independently of the main track rails; being laid down or removed without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two castings and two rails; the latter, even if much worn or used, not objectionable.

Working models of the Safety Switch may be seen at Messrs. Davenport, Bridges & Kirk's Cambridge Port, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained, on application to the Subscriber, Inventor and Patentee. G. A. NICOLLS, Reading, Pa.

MACHINE WORKS OF ROGERS KETCHUM & GROSVENOR, Patterson, N. J. The undersigned receive orders for the following articles manufactured by them of the most superior description in every particular. Their works being extensive, and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and dispatch.

Railroad Work.—Locomotive Steam Engines and Tenders; Driving and other Locomotive Wheels, Axles Springs and Flange Tires; Car Wheels of Cast Iron a variety of patterns and chills; Car Wheels of Cast Iron with wrought tires; Axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and millwright work generally, hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,  
Patterson, N. J., or 60 Wall St., New York.



## Fuller's Patent India-Rubber Springs.

**T**HERE can now be no ground of opposition whatever to these Springs. The Commissioner of Patents has not only rejected the application for a Patent for a similar Spring, but a Patent has just been granted for an entirely new species of India Rubber, the quality of which can be surpassed by no other kind, as the experiments which have lately been publicly made, have fully proved. No extremes of heat or cold can effect it, nor will any amount of pressure permanently alter its shape. This Patent refutes the statement of the "New England Car Company" as to their sole right to use India Rubber.

The Spring (composed by alternate layers of India Rubber Discs and Metal Plates) is superior to any other form of Spring, for several reasons: It is the lightest, the most simple and most durable—there being less friction in this than in other kind; it can be regulated to any extent desired. A less quantity of Rubber is required in this form to make a good spring than in any other because each disc or ring of India Rubber is firmly supported by metal plates, and forms in itself a distinct spring nor is any spiral spring required. The Patentee is presently able to supply efficient springs at a less cost than any other parties can do. Purchasers are guaranteed in the use of these springs.

The New England Car Company have no right to make an India-rubber Spring with a Bolt through the centre. All companies using such a spring are liable to an action.

Fuller's spring has been used nearly four years with complete success. It is applicable equally to Passenger and Freight Cars, to Locomotives and Tenders. Bumpers and Draw Springs are always kept on hand, which merely require screwing to a car. It has lately been applied also to several kinds of Machines.

Action will be brought against all persons infringing upon these patents.

The subscriber will show Models and Drawings of the various modes of application to Cars, Machines, Omnibuses, &c. G. M. KNEVITT, Agent.

Principal office, No. 38 Broadway, New York.

Branch office, Messrs. James Lee & Co.'s, No. 18 India Wharf, Boston.

Mr. Hale, the President of the Boston and Worcester Railroad, wrote an article concerning Fuller's

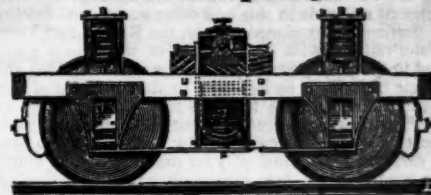
Spring. The "New England Car Company" take the liberty of publishing that article, omitting, however, a very important part; it is therefore given in full now, and the portion omitted by the New England Car Company is printed in italics, that the public may judge the manner in which this "company" pervert Mr. Hale's meaning.

[From the Boston Advertiser of the 7th June].

INDIA RUBBER SPRINGS FOR RAILROAD CARS.

"Of the numerous uses to which the wonderful elasticity and durability of India rubber, renders this material applicable, we are hardly aware of one, in which it has been more successful than in forming springs for railroad cars. We have had occasion to observe, for some months past, its application to this use, on one of the passenger cars on the Newton special train of the Boston and Worcester railroad. It is there used not only for the springs on which the car rests, but for the springs attached to the draw bar, at each end of the car, to prevent any jar on the sudden commencement, or interruption of the motion of the car. For both these purposes it seems to be admirably adapted, and we do not learn that during that period in which it has been used, any defect has been discovered. It renders the movements of the car extremely easy, and protects it more effectually, we think, than any other spring we have seen in use, from every harsh or unpleasant motion, either vertical or horizontal. It is also simple in its form and application, extremely light, and little liable to get out of repair. During the period of some months in which we have seen the springs in operation, there is no apparent wear or diminution of its efficiency. Each spring is composed of several circular layers of rings of India rubber, a thin metallic plate of the same size being interposed between each of the layers. From the simplicity of its form, it cannot be expensive, and it admits of being made more or less elastic almost at pleasure. The invention, we understand, was first patented in England, where it has been introduced into general use on several of the principal railroads, and we have no doubt it will come into very extensive use in this country. The patent for this invention, we understand, has been granted to Mr. W. C. Fuller, in England and France, and also in this country. Mr. Kneivitt, of New York, is the agent for the patentee in the United States, and he has established a branch office for the supply of the article in this city, as may be learned from an advertisement in another column of this paper."

## F. M. Ray's Patent India-rubber Car Springs.



India-rubber Springs for Railroad Cars were first introduced into use, about two years since, by the inventor. The New England Car Company, now possesses the exclusive right to use, and apply them for this purpose in the United States. It is the only concern that has tested their value by actual experiment, and in all arguments in favor of them, drawn from experience of their use, are in those cases where they have been furnished by this company. It has furnished every spring in use upon the Boston and Worcester road, and, in fact, it has furnished all the springs ever used in this country, with one or two exceptions, where they have been furnished in violation of the rights of this company; and those using them have been legally proceeded against for their use, as will invariably be done in every case of such violation.

The Spring formed by alternate layers of India-rubber discs and metal plates, which Mr. Fuller claims to be his invention, was invented by Mr. Ray in 1844. In proof of which we give the deposition of Osgood Bradley, of the firm of Bradley & Rice, of Worcester, Mass., car manufacturers, and men of the highest respectability. In this deposition, in relation to the right of parties to use these springs, he says:

"I have known Mr. Ray since 1835. In the last of May or the commencement of June, 1844, he was at my establishment, making draft of car trucks. He staid there until about the first of July, and left and went to New York. Was gone some 8 or 10 days, and returned to Worcester. He then on his return said he had a spring that would put iron and steel springs into the shade. Said he would show it to me in a day or two. He showed it to me some two or three days afterwards. It was a block of wood with a hole in it. In the hole he had three pieces of India-rubber, with iron washers between them, such as are used under the nuts of cars. Those were put on to a spindle running through them, which worked in the hole. The model now exhibited is similar to the one shown him by Ray. After the model had been put into a vice, witness said that he might as well make a spring of putty. Ray then said that he meant to use a different kind of rubber, and referred to the use of Goodyear's Metallic Rubber, and that a good spring would grow out of it." There are many other depositions to the same effect.

The history of the invention of these springs, together with these depositions, proving the priority of the invention of Mr. Ray, will be furnished to all interested at their office in New York.

This company is not confined to any particular form in the manufacture of their springs. They have applied them in various ways, and they warrant all they sell.

The above cut represents precisely the manner in which the springs were applied to the cars on the Boston and Worcester road, of which Mr. Hale, President of this road speaks, and to which Mr. Kneivitt refers in his advertisement. Mr. Hale immediately corrected his mistake in the article quoted by Mr. Kneivitt, as will be seen by the following from his paper of June 8, 1848. He says:

INDIA-RUBBER SPRINGS FOR RAILROAD CARS.—"In our paper yesterday, we called attention to what promises to be a very useful invention, consisting of the application of a manufacture of India-rubber to the construction of springs for railroad cars. Our object was to aid in making known to the public, what appeared to us the valuable properties of the invention, as they had been exhibited on trial, on one of the passenger cars of the Boston and Worcester railroad. As to the origin of the invention we had no particular knowledge, but we had been informed that it was the same which had been introduced in England, and which had been subsequently patented in this country; and, we were led to suppose that the manufacturers who have so successfully applied this material, in the case to which we referred had become possessed of the right to use that patent. It will be seen from the following communication, addressed to us by a member of the company, by which the Worcester railroad was supplied with the article upon which our remarks were based, that we were in an error, and that the springs here introduced are an American invention, as well as an American manufacture. How far the English invention may differ from it we have had no opportunity of judging."



## RIDER'S PATENT IRON BRIDGE.

THE RIDER IRON BRIDGE having been fully tested on the Harlem Railroad, by constant use for about eighteen months, and found to answer the full expectations of its most sanguine friends, is now offered to the public with the utmost confidence as to its great utility over any other Bridge now known.

The plan of this Bridge is to use the iron so as to obtain its greatest longitudinal strength, and at the same time is so arranged as to secure the combined principles of the Arch, Suspension and Triangle, all under such controlling power as causes each to act in the most perfect and secure manner, and at the same time impart its greatest strength to the whole work.

THE IRON RIDER BRIDGE COMPANY are prepared to furnish large quantities of Iron Bridging for Railroad or other purposes, made under the above patent, at short notice, and at prices far more economical than the best wood structure, and on certain conditions, the first cost may be made the same as wood.

Models, and pamphlets giving full descriptions of the RIDER BRIDGE, with certificates based on actual trial from undoubted sources, will be found at the office of the Company, 74 BROADWAY, up stairs, or of W. RIDER & BROTHERS, 58 Liberty Street, where terms of contract will be made known, and where orders are solicited.

November 25, 1848.

M. M. WHITE,  
Agent for the Company.

## RAILROAD India-rubber Springs.

**I**F any Railroad Company or other party desires it, the NEW ENGLAND CAR COMPANY will furnish India-rubber Car Springs made in the form of washers, with metallic plates interposed between the layers, or in any other form in which they can be made; in all cases guaranteeing the right to use the same against any and all other pretended rights or claims whatsoever.

F. M. Ray, 98 Broadway, New York.

E. CRANE, 99 State Street, Boston.

May 24, 1849.

**L**AP-WELDED WROUGHT IRON TUBES for Tubular Boilers, from 14 to 15 inches diameter, and any length not exceeding 17 feet—manufactured by the Caledonian Tube Company, Glasgow, and for sale by

IRVING VAN WART,  
12 Platt street, New York.

JOB CUTLER, Patentee.

These Tubes are extensively used by the British Government, and by the principal Engineers and Steam Marine and Railway Companies in the Kingdom.

**MR. HALE:**—"The New England Car Co. having been engaged for the last six months in introducing the Vulcanized India-rubber Car Springs upon the different railroads in this and other states, and having in particular introduced it upon the Boston and Worcester railroad with perfect success, were much gratified to find, by your paper of this morning, that the article had given satisfaction to the president of that corporation, and the terms of just commendation in which you were pleased to speak of it. But their gratification was scarcely equalled by their surprise, when, or arriving at the close of your paragraph, they found the results of all their labors attributed to a foreign source, with which the New England Car Co. has no connection. The material used on the Boston and Worcester railroad, and all the other railroads in this country, where any preparation of India-rubber has been successfully applied, is entirely an American invention, patented in the year 1844 to Charles Good-year, of New Haven, Conn., and the application of it to this purpose and the form in which it is applied are the invention of F. M. Ray of New York. The only material now in use, and so far as has yet appeared, the only preparation of India rubber capable of answering the purpose, has been furnished under these patents by the New England Car Company, manufactured under the immediate inspection of their own agent. If any other should be produced, the right to use it would depend upon the question of its interference with Mr. Goodyear's patent. The New England Car Company have their place of business in this city at No. 99 State street, and are prepared to answer all orders for the Vulcanized India rubber Car Springs, of the same quality and of the same manufacture as those which they have already placed on your road, and most for the other roads terminating in this city."

And yet Mr. Kneivitt is using these experiments made upon the Springs of the Car Company to induce the public to purchase his springs, and is attempting to impose upon them the belief that the springs used were furnished by him! We ask whether such a course is honorable, or entitles his statements to much consideration from the public.

The above Springs are for sale 98 Broadway, New York, and 99 State street, Boston.

EDWARD CRANE Agent, Boston.  
F. M. RAY, Agent, New York.

Boston, May 8, 1849.

### Devlan's Machinery Oil.

THE Subscribers, Agents for P. S. Devlan & Co's "Patent Lubricating Oil"—price 80c. per gallon 4 mos. or 3 per cent off for cash.

We refer to the following certificate of Messrs. Norris Brothers, in whose works, any one by calling can see the oil in use and judge for themselves.

NORRIS' LOCOMOTIVE WORKS. }  
Philadelphia, April 2, 1849. }

We have been using throughout our Works, during the last six weeks, "Devlan's Lubricating Oil," and so far as we have been able to judge from its use, we think it preferable to the sperm oil generally used, for both heavy and light bearings.

For sale by ALLEN & NEEDLES,  
22 & 23 South Wharves,  
Philadelphia Pa.

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### Coal.

CUMBERLAND SEMI-BITUMINOUS COAL  
superior quality for Locomotives, for sale by

H. B. TEBBETTS,  
No. 54 Pine St., New York.

May 12, 1849.

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### RAILROADS.

**NORWICH AND WORCESTER RAILROAD.**  
Summer Arrangement.—1849.

Accommodation Trains  
daily (Sundays excepted.)

Leave Norwich at 5 a.m., and 5 p.m.  
Leave Worcester at 10½ a.m., and 4½ p.m.,  
connecting with the trains of the Boston and Worcester, Providence and Worcester, Worcester and Nashua and Western railroads.

New York & Boston Line. Railroad & Steamers.  
Leave New York and Boston daily, Sundays excepted, at 5 p.m.—At New York from pier No. 18, North River.—At Boston from corner Beach and Albany streets, opposite United States Hotel. The steamboat train stops only at Framingham, Worcester, Danielsonville and Norwich.

Freight Trains leave Norwich and Worcester daily, Sundays excepted.—From Worcester at 6½ a.m., from Norwich at 9 a.m.

S. H. P. LEE, Jr., Sup't.  
May 20, 1849.

**EASTERN RAILROAD, Spring and Summer Arrangement.** On and after Thursday, March 15, '49,

Trains will leave Eastern Railroad Depot, Eastern Avenue, Commercial-street, Boston, daily, (Sundays excepted.)

For Lynn, 7, 10, a.m., 12, 2½, 3, 4½, 5½, 7, p.m.  
Salem, 7, 10, a.m., 12, 2½, 3, 4½, 5½, 7, p.m.  
Manchester, 10, a.m., 3, 5½ p.m.  
Gloucester, 10, a.m., 3, 5½ p.m.  
Newburyport, 7, a.m., 2½, 4½, 7, p.m.  
Portsmouth, 7, a.m., 2½, 4½, p.m.  
Portland, Me., 7, a.m., 2½, p.m.

And for Boston,

From Portland, 7½ a.m., 3, p.m.  
Portsmouth, 7, 9½, a.m., 5½, p.m.  
Newburyport, 6, 7½, 10½, a.m., 6, p.m.  
Gloucester, 7, a.m., 2, 5½ p.m.  
Manchester, 7½ a.m., 2½, 5½ p.m.,  
Salem, 7, 8, 9, 10½, 11-40, a.m., 2½, 6, 7, p.m.  
Lynn, 7½, 8½, 9½, 10½, 11-55, a.m., 3, 6½, 7½, p.m.

\* Or on their arrival from the East.

### MARBLEHEAD BRANCH.

Trains leave

Marblehead for Salem, 6½, 8½, 10½, 11-25, a.m., 2½, 4½, 5½, p.m.  
Salem for Marblehead, 7½, 9½, 10½, a.m., 12½, 3½, 5½, 6½, p.m.

### GLOUCESTER BRANCH.

Trains leave

Salem for Manchester at 10½ a.m., 3½, 6½ p.m.  
Salem for Gloucester at 10½ a.m., 3½, 6½ p.m.  
Trains leave  
Gloucester for Salem at 7, a.m., 2, 5½ p.m.  
Manchester for Salem at 7½ a.m., 2½, 5½ p.m.  
Freight trains each way daily. Office 17 Merchants' Row, Boston.  
Feb. 3. JOHN KINSMAN, Superintendent.

**BOSTON AND MAINE RAILROAD.**

Spring Arrangement, 1849.  
Outward Trains from Boston

For Portland at 6½ a.m. and 2½ p.m.  
For Rochester at 6½ a.m., 2½ p.m.  
For Great Falls at 6½ a.m., 2½, 4½ p.m.  
For Haverhill at 6½ and 12 m., 2½, 4½, 6 p.m.  
For Lawrence at 6½, 9 a.m., 12 m., 2½, 4½, 6, 7½ p.m.  
For Reading at 6½, 9 a.m., 12 m., 2½, 4½, 6, 7½, 9½ p.m.

Inward trains for Boston

From Portland at 7½ a.m., 3 p.m.  
From Rochester at 9 a.m., 4½ p.m.  
From Great Falls at 6½, 9½ a.m., 4½ p.m.  
From Haverhill at 7, 8½, 11½ a.m., 3, 6½ p.m.  
From Lawrence at 6, 7½, 8½, 11½ a.m., 1½, 3½, 7 p.m.  
From Reading at 6½, 7½, 9 a.m., 12 m., 2, 3½, 6, 7½ p.m.

MEDFORD BRANCH TRAINS.

Leave Boston at 7, 9½ a.m., 12½, 2½, 5½, 6½, 9½ p.m.  
Leave Medford at 6½, 8, 10½ a.m., 2, 4, 5½, 6½, p.m.

\* On Thursdays, 2 hours; on Saturdays, 1 hour later.  
CHAS. MINOT, Sup't.  
Boston, March 27 1849.

**BOSTON & LOWELL RAILROAD.**

Passenger trains run as follows, viz:

Express Trains.

Leave Boston at 7½ a.m., 12 m. and 5 p.m.  
Leave Lowell at 8 a.m., 12 m. and 4 55 p.m.—or on the arrival of the train from Nashua.

Accommodation Trains.

Leave Boston at 7 5 and 9½ a.m., 2½, 4½ & 6½ p.m.  
Leave Lowell at 7 and 10 a.m., 2, 5 and 6 p.m.

Woburn Branch Trains.

Leave Woburn Centre at 6, 7, 9, 10 a.m., 1½ and 4½ p.m.  
Leave Boston at 8, 11½ a.m., 3, 5½ and 7 p.m.  
On Saturdays, the last train leaves at 8 instead of 7 p.m.

The trains from Boston at 7½ a.m., and 5 p.m., and from Lowell at 4 55 p.m., do not stop at Way Stations. The trains from Lowell at 8 a.m. and from Boston and Lowell at 12 m., stop at no way station except Woburn Watering Place, and there only for Upper Railroad Passengers.

WALDO HIGGINSON,  
Agent Boston and Lowell Railroad Cor.  
Boston March 5, 1849.

**ESSEX RAILROAD—SALEM to LAWRENCE,** through Danvers, New Mills, North Danvers, Middleton, and North Andover.

On and after Thursday, March 15, trains leave daily (Sundays excepted,) Eastern Railroad Depot, Washington-st.

Salem for South Danvers at 8 a.m., 12.45, 3.45, 6.30, p.m.  
Salem for North Danvers at 8 a.m., 12.45, 3.45, p.m.  
Salem for Lawrence, 8 a.m., 3.45, p.m.  
" North Andover 8 a.m., 3.45, p.m.  
" Middleton 8 a.m., 3.45, p.m.  
South Danvers for Salem at 6.45, 10.15, a.m., 2.15, 5.45, p.m.  
North Danvers " 10 a.m., 2, 5.40, p.m.  
Middleton " 9.45 a.m., 5.15, p.m.  
North Andover " 9.20 a.m., 5.05, p.m.  
Lawrence " 9.15 a.m., 5, p.m.

JOHN KINSMAN, Superintendent.  
Salem, Oct. 2, 1848.

**BOSTON AND PROVIDENCE RAILROAD.**  
On and after MONDAY, APRIL 24, the

Trains will run as follows:—

Steamboat Train—Leave Boston at 5 p.m. Leaves Providence on the arrival of the train from Stonington.

Accommodation Trains—Leave Boston at 8 a.m., and 4 p.m. Leave Providence at 8½ a.m., and 4 p.m.

Dedham Trains—Leave Boston at 8½ a.m., 12 m., 3½, 6½, and 10½ p.m. Leave Dedham at 7.9½ a.m., 2½, 5, and 8 p.m.

Stoughton Trains—Leave Boston at 1 a.m., and 5½ p.m. Leave Stoughton at 11½ a.m., and 3½ p.m.

Freight Trains—Leave Boston at 11 a.m., and 6 p.m. Leave Providence at 4 a.m., and 7.40 a.m.

On and after Wednesday, Nov. 1, the DEDHAM TRAIN will run as follows: Leave Boston at 9 a.m., 12 m., 3, 5½, and 10½ p.m. Leave Dedham at 8, 10½, a.m., 1½, 4½, and 9 p.m.

WM. RAYMOND LEE, Sup't.

**FITCHBURG RAILROAD.**  
On and after Monday, April 23d, 1849, Trains will run as follows:

Express Train.

Leaves Boston at 7½ a.m.; Fitchburg at 3 55 p.m. or upon arrival of the trains from the upper roads.

Accommodation Up Trains.

For Groton, West Townsend and Fitchburg, 6 50 and 11 a.m. and 3 40 p.m.

Concord, 6 50 and 11 a.m., 3 40 and 7 p.m.  
Waltham, 6 50, 7 35, 10 and 11 a.m., 1 45, 3 25, 3 40 and 7 p.m.

Fresh Pond, Mount Auburn and Watertown, 9 a.m., 12 m. and 2 20 and 7 15 p.m.

West Cambridge and Lexington, 9 30 a.m., 2 30 and 6 30 p.m.

Down Trains.

From Fitchburg, 7 50, 11 55 a.m. and 4 40 p.m.  
West Townsend, 7 30, 11 55 a.m. and 4 40 p.m.

Groton, 8 20 a.m., 12 30 and 5 15 p.m.  
Concord, 6 25 and 9 a.m., 1 10 and 5 55 p.m.

Waltham, 6 50, 8 15, 9 25 and 11 a.m., 1 35, 2 35, 4 30 and 6 20 p.m.

West Cambridge and Lexington, 7 and 11 15 a.m. and 4 45 p.m.

Fresh Pond, Mount Auburn and Watertown, 7 15 and 10 a.m., 1 30 and 4 30 p.m.

The 6 50 a.m. up train will not stop at Stony Brook, Lincoln and Lunenburg.

The 11 a.m. up train will not stop at Weston and West Acton.

The 3 40 p.m. up train will not stop at Charlestown Porters, West Cambridge and Lunenburg.

The morning train down will not stop at Lunenburg and Lincoln.

The evening train down will not stop at Lunenburg and Stony Brook.

S. M. FELTON, Superintendent.  
Boston, April 21, 1849.

### CORROSIVE SUBLIMATE.

THIS article now extensively used for the preservation of timber, is manufactured and for sale by POWERS & WEIGHTMAN, manufacturing Chemists, Philadelphia.  
Jan. 20, 1849.



**NEW YORK AND ERIE RAILROAD.**  
EXTENDED TO OWEGO.

On and after the 1st June, the trains will run as follows, daily, excepting Sundays: For Passengers—Through trains will leave New York for Owego by steamboat, from the Duane-st. pier, at 7½ o'clock, A.M. and 5 o'clock, P.M. stopping at Ramapo Station, Chester, Goshen, Middletown, Otisville, Port Jervis and all the way stations west of the last-named place; and will leave Owego on and after the 4th June, at 6 A.M. and 7 P.M.; and Binghamton, on and after the 1st June, at 7 A.M. and 8 P.M. arriving in New York at 7½ P.M. and 8½ A.M. stopping at all the way stations between Owego and Port Jervis; and, east of Port Jervis, at Otisville, Middletown, Goshen, Chester, Ramapo Station and Spring Valley. Way Trains for Port Jervis and all the intermediate stations, will leave New York, by steamboat Thomas Powell, from Duane-st. pier, at 7½ A.M. and 4 P.M.; and will leave Port Jervis at 6 A.M. and 4 P.M. Milk Trains—A train leaves Otisville at 5½ A.M. arriving in New York about 11. The afternoon milk is taken by the train leaving Port Jervis at 4 o'clock P.M. and arriving in New York about midnight. Freight—Freight leaves New York every night for all the regular stations on the road. A freight train will leave Owego every morning at 6 o'clock; and another will leave Port Jervis, as usual, every morning at 8 o'clock, with market freight, &c. **JAS. P. KIRKWOOD,**  
May 30, 1849. Superintendent.

**NEW YORK & HARLEM RAILROAD, DAILY.**  
WINTER ARRANGEMENT.

On and after December 1st, 1848, the Cars will run as follows, until further notice:—

Trains will leave the City Hall, New York, for Harlem and Morrisiana at 7, 9, 9.30, 11, am. 12 m., 2, 4, 4.15, 5.30, pm.

Trains will leave the City Hall, New York, for Fordham and Williams' Bridge, at 7.30 and 9.30 am., 12 m., 2, 4.15, 5.30 pm.

Trains will leave the City Hall, New York, for Hunt's Bridge, Underhill's and Hart's Corners, at 9.30 am., 4.15 pm.

Trains will leave the City Hall, New York, for Tuckahoe and White Plains, at 7.30 and 9.30 am., 3 and 4.15 pm.

Trains will leave Davis' Brook, Pleasantville, Chappaqua, Mount Kisko, Bedford, Mechanicsville, Purdy's and Croton Falls, at 7.30 and 9.30 am., 3 pm.

**NOTICE**—Passengers are reminded of the great danger of standing upon the platform of the cars, and hereby notified that the practice is contrary to the rules of the Company, and that they do not admit any responsibility for injury sustained by any passenger upon the platforms, in case of accident.

Returning to New York will leave

Morrisiana and Harlem at 7.20, 8.50, 10 am., 12 m., 1.35, 3, 3.45, 5, 5.35 pm.

Fordham and Williams' Bridge at 7, 8.30, 9.50 am., 1.15, 3.25, 5.20 pm.

Hunt's Bridge at 8.20, am., 3.18 pm.

Underhill's Road at 8.10 am., 3.08 pm.

Tuckahoe at 8.05, 9.30 am., 3.05, 5 pm.

Hart's Corners at 7.55 am., 2.52 pm.

White Plains at 7.45, 9.10 am., 2.45, 4.40 pm.

Davis' Brook at 9 am., 2.35, 4.30 pm.

Pleasantville at 8.49 am., 2.20, 4.19 pm.

Mount Kisko at 8.30 am., 2, 4 pm.

Bedford at 8.25 am., 1.53, 3.55 pm.

Mechanicsville at 8.15 am., 1.45, 3.45 pm.

Purdy's at 8.05 am., 1.35, 3.35 pm.

Croton Falls, at 8 am., 1.30, 3.30 pm.

The trains for Harlem and Morrisiana leaving City Hall at 7, 9, 9.30, 11, 12, 2, 4, and 5.30, and from Morrisiana and Harlem at 7.20, 8.10, 12, 1.35, 3, 3.45, and 5 o'clock, will land and receive passengers at 27th st., 42d, 51st, 61st, 79th, 86th, 109th, 115th, 125th, and 132d streets.

The 7.30 am., and 3 pm. Trains from New York to Croton Falls, and the 8 am. Train from Croton Falls will not stop between White Plains and New York, except at Tuckahoe, Williams' Bridge and Fordham.

A car will precede each train ten minutes to take up passengers in the city. The last car will not stop, except at Broome st. and 32d street.

Freight Trains leave New York at 6 am. and 1 pm.; leave Croton Falls at 7 am. and 2.30 pm., Sundays excepted.

**NOTICE**—On Sundays the 7 am. to Harlem and Morrisiana, returning at 8 o'clock, and the 7.30 am. to Croton Falls, returning at 1.30 pm., will be omitted, and the 7 am. from Williams Bridge will leave at 7.40 and Morrisiana and Harlem at 8 o'clock.

**ST. LAWRENCE & ATLANTIC RAILROAD COMPANY.**

Notice is hereby given that the Trains run twice per day between Montreal and St. Hyacinthe, leaving each terminus alternately, until further notice.

Leaving St. Hyacinthe at	-	-	7 am.
"	"	"	3 pm.
Leaving Montreal at	-	-	10 am.
"	"	"	6 pm.

**THOMAS STEERS, Secretary.**

May 31, 1849.

**BALTIMORE AND SUSQUEHANNA RAILROAD.**—Reduction of Fare. Morning and Afternoon Trains between Baltimore and York.—The Passenger Trains

run daily, except Sundays, as follows:

Leave Baltimore at	-	-	9 am. and 3½ pm.
Arrive at	-	-	9 am. and 6½ pm.
Leave York at	-	-	5 am. and 3 pm.
Arrive at	-	-	12½ pm. & 8 pm.
Leave York for Columbia at	-	-	1½ pm. & 8 am.
Leave Columbia for York at	-	-	8 am. & 2 pm.

Fare to York	-	-	\$1 50
"	Wrightsville	-	2 00
"	Columbia	-	2 12½

Way points in proportion.

**PITTSBURG, GETTYSBURG, AND HARRISBURG.**

Through tickets to Pittsburg via stage to Harrisburg - \$9  
Or via Lancaster by railroad - 10

Through tickets to Harrisburg or Gettysburg - 3

In connection with the afternoon train at 3½ o'clock, a horse car is run to Green Spring and Owing's Mill, arriving at the Mills at - 5½ pm.

Returning, leaves Owing's Mills at - 7 am.

**D. C. H. BORDLEY, Supt.**  
Ticket Office, 63 North st.

**GEORGIA RAILROAD. FROM AUGUSTA TO ATLANTA—171 MILES.**

AND WESTERN AND ATLANTIC RAILROAD, FROM ATLANTA TO DALTON, 100 MILES.

This Road, in connection with the South Carolina Railroad, and Western and Atlantic Railroad, now forms a continuous line, 408 miles in length, from Charleston to Dalton Cross Plains in Murray county, Ga. 32 miles from Chattanooga, Tenn.

**RATES OF FREIGHT.**

		Between Augusta and Dalton, 271 miles.	Between Charleston and Dalton, 408 miles.
1st class	Boxes of Hats, Bonnets, and Furniture, per cubic foot	\$0 18	\$0 28
2d class	Boxes and Bales of Dry Goods, Saddlery, Glass, Paints, Drugs, and Confectionary, per 100 lbs.	1 00	1 50
3d class	Sugar, Coffee, Liquor, Bagging, Rope, Cotton, Yarns, Tobacco, Leather, Hides, Copper, Tin, Feathers, Sheet Iron, Hollow ware, Castings, Crockery, etc.	0 60	0 85
4th class	Flour Rice, Bacon, Pork, Beef, Fish, Lard, Tallow, Beeswax, Bar Iron, Ginseng, Mill Gearing, Pig Iron, and Grindstones, etc.	0 40	0 65
	Cotton, per 100 lbs.	0 45	0 70
	Molasses per hogshead	8 50	13 50
	" " barrel	2 50	4 25
	Salt per bushel	0 18	
	Salt per Liverpool sack	0 65	
	Ploughs, Corn Shellers, Cultivators, Straw Cutters, Wheelbarrows -	0 75	1 50

German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Company will be forwarded free of commissions. Freight payable at Dalton.

**F. C. ARMS,**  
Supt of Transportation.

**LITTLE MIAMI RAILROAD.—WINTER ARRANGEMENT.**

Change of Hours.  
On and after Thursday, November 11th, 1848, until further notice, Passenger Trains will run as follows:

Leave Depot East Front street at 9½ o'clock, am., and 2½ o'clock, p.m., for Milford, Foster's Crossings, Deerfield, Morrow, Waynesville, Spring Valley, Xenia, Yellow Springs, and Springfield.

Returning, leave Springfield, at 2½ o'clock, and 9½ o'clock, am.

Passengers for New York, Boston, and intermediate points, should take the 9½ o'clock, am., Train from Cincinnati.

Passengers for Columbus, Zanesville, Wheeling and intermediate towns, should take the 9½ o'clock, am., Train.

The Ohio Stage Company are running the following lines in connection with the Trains:

A Daily Daylight Line to Columbus from Springfield in connection with the Morning Train from Cincinnati. Also, Daily Lines to Columbus, from Xenia and Springfield, connecting with the 2½ o'clock, pm. Train from Cincinnati.

The 2½ pm., Train from Cincinnati, and 2½ am., Train from Springfield, are intended for the accommodation of Way Passengers only, and will be eight hours on the road.

Fare from Cincinnati to Xenia - \$1 90

Do do Springfield - 2 50

Do do Sandusky City - 6 50

Do do Buffalo - 10 00

Do do Columbus - 4 50

For other information and through tickets, apply at the Ticket Office on Broadway, near Front-st., Cincinnati.

**W. H. CLEMENTS, Superintendent.**

The Company will not be responsible for Baggage exceeding 50 dollars in value, unless the same is returned to the Conductors or Agent, and freight paid at the rate of a passage for every 500 dollars in value to that amount.

**BALTIMORE AND OHIO RAILROAD, MAIN STEM.**

The Train carrying the Great Western Mail leaves Baltimore every morning at 7, and Cumberland at 8 o'clock.

passing Ellicott's Mills, Frederick, Harper's Ferry, Martinsburgh and Hancock, connecting daily each way with—the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harper's Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia, and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh.

Time of arrival at both Cumberland and Baltimore 5½ P. M. Fare between these points \$7, and 4 cents per mile for less distances.

Fare through to Wheeling \$11, and time about 36 hours, to Pittsburgh \$10, and time about 32 hours.

Through tickets from Philadelphia to Wheeling \$13, to Pittsburgh \$12. Extra train daily, except Sundays, from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

**WASHINGTON BRANCH.**

Daily trains at 9 A. M., and 5 P. M., and 12 at night from Baltimore, and at 6 A. M. and 5½ P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington, and the Relay House. Fare \$1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances.

**PHILADELPHIA, WILMINGTON, & BALTIMORE RAILROAD.**

Summer Arrangement.

April 1st, 1849.—Fare \$3.

Leave Philadelphia 8½ am., and 10 pm.

Leave Baltimore 9 am., and 8 pm.

Sunday—Leave Philadelphia at 10 pm.

" " Baltimore at 8 pm.

Trains stop at way stations.

**Charleston, S. C.**

Through tickets Philadelphia to Charleston, \$20.

**Pittsburg and Wheeling.**

Through ticket, Philadelphia to Pittsburg, \$12.

" " Wheeling, 13.

Through tickets sold at Philadelphia office only.

**Wilmington Accommodation.**

Leave Philadelphia at 12 m. 4 and 7 pm.

Leave Wilmington at 7½ am., 4½ and 7 pm.

**Newcastle Line.**

Leave Philadelphia at 2½ pm.—Baltimore at 1½ pm.

Fare \$3.—Second class, \$2.

**N.B.**—Extra baggage charged for.

**I. R. TRIMBLE, Gen. Supt.**

**PHILADELPHIA & READING RAILROAD.**

Passenger Train Arrangement for 1848.

A Passenger Train will leave Philadelphia and Pottsville daily, except Sundays, at 9 o'clock am.

The Train from Philadelphia arrives at Reading at 12 18 m.

The Train from Pottsville arrives at Reading at 10 43 am.

Fares.	Miles.	No. 1.	No. 2.
Between Phila. and Pottsville,	92	\$3.50	and \$3.00
" " Reading	58	2.25	and 1.90
" " Pottsville	34	1.40	and 1.20

Five minutes allowed at Reading, and three at other way stations.

Passenger Depot in Philadelphia corner of Broad and Vine streets.

**CENTRAL RAILROAD—FROM SAVANNAH**

to Macon. Distance 190 miles.

This Road is open for the transportation of Passengers & Freight.

Rate of Passage	\$3 00.	Freight—
On weight goods generally,	50	cts. per hundred
On measurement goods	13	cts. per cubic ft.

On brls. wet (except molasses and oil) 1 50 per barrel.

On brls. dry (except lime) 80 cts. per barrel.

On iron in pigs or bars, castings for mills, and unboxed machinery 40 cts. per hundred

On hhd. and pipes of liquor, not over 120 gallons \$5 00 per hhd.

On molasses and oil \$6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded free of commission.

THOMAS PURSE,  
Gen'l Sup't Transportation.

**SOUTH CAROLINA RAILROAD.—A PAS-**

senger Train runs daily from Charleston, on the arrival of the boats from Wilmington, N. C., in connection with trains on

the Georgia, and Western and Atlantic Railroads—and by stage lines and steamers connects with the Montgomery and West Point, and the Tusculum Railroad in N. Alabama.

Fare through from Charleston to Montgomery daily \$26 50

Fare through from Charleston to Huntsville, Decatur and Tusculum 22 00

The South Carolina Railroad Co. engage to receive merchandize consigned to their order, and to forward the same to any point on their road; and to the different stations on the Georgia and Western and Atlantic Railroad; and to Montgomery, Ala., by the West Point and Montgomery Railroad.

JOHN KING, Jr., Agent.

**THE WESTERN AND ATLANTIC RAILROAD.**

This Road is now in operation to Oothcaloga, a distance of 80 miles, and connects daily (Sundays excepted) with the Georgia Railroad.

From Kingston, on this road, there is a tri-weekly line of stages, which leave on the arrival of the cars on Tuesday, Thursday and Saturday, for Warrenton, Huntsville, Decatur, and Tusculum, Alabama, and Memphis, Tennessee.

On the same days the stages leave Oothcaloga for Chattanooga, Jasper, Murfreesborough, Knoxville and Nashville, Tennessee.

This is the most expeditious route from the east to any of these places.

CHAS. F. M. GARNETT,  
Chief Engineer

**PATENT MACHINE MADE HORSE-SHOES.**

The Troy Iron and Nail Factory have always on hand a general assortment of Horse Shoes, made from Refined American Iron.

Four sizes being made, it will be well for those ordering to remember that the size of the shoe increases as the numbers—No. 1 being the smallest.

P. A. BURDEN, Agent,  
Troy Iron and Nail Factory, Troy, N. Y.

**TO LOCOMOTIVE AND MARINE ENGINE**

Boiler Builders. Pascal Iron Works, Philadelphia. Welded Wrought Iron Flues, suitable for Locomotives, Marine, and other Steam Engine Boilers, from 2 to 5 inches in diameter. Also, Pipes for Gas, Steam and other purposes; extra strong Tube for Hydraulic Presses; hollow Pistons for Pumps of Steam Engines etc. Manufactured and for sale by

MORRIS, TASKER & MORRIS,  
Warehouse S. E. corner 3d and Walnut streets,  
Philadelphia.

**Norwich Car Factory,**

NORWICH, CONNECTICUT,

At the head of navigation on the River Thames, and on the line of the Norwich & Worcester Railroad, established for the manufacture of

RAILROAD CARS,

OF EVERY DESCRIPTION, VIZ:

PASSENGER, FREIGHT AND HAND CARS,

ALSO, VARIOUS KINDS OF

ENGINE TENDERS AND SNOW PLOUGHS

TRUCKS, WHEELS &amp; AXLES

Furnished and fitted at short notice.

Orders executed with promptness and despatch.

Any communication addressed to

JAMES D. MOWRY,

General Agent,

Norwich, Conn.,

Will meet with immediate attention. 1yt

THE NEWCASTLE MANUFACTURING Co. continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack Screws, Wrought Iron Work and Brass and Iron Castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast Wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

ANDREW C. GRAY,

President of the Newcastle Manuf. Co.

**DEAN, PACKARD & MILLS,**

MANUFACTURERS OF ALL KINDS OF

**RAILROAD CARS,**

SUCH AS

PASSENGER, FREIGHT AND CRANK CARS,

— ALSO —

SNOW PLOUGHS AND ENGINE TENDERS

OF VARIOUS KINDS.

CAR WHEELS and AXLES fitted and furnished

at short notice; also, STEEL SPRINGS

of various kinds; and

SHAFTING FOR FACTORIES.

The above may be had at order at our Car Factory,

REUEL DEAN, } SPRINGFIELD, MASS.

ELIJAH PACKARD, }

ISAAC MILLS, } 1y48

**NORRIS' LOCOMOTIVE WORKS,**

SCHENECTADY, N. Y.

THESE Works are in full operation in Manufacturing to order, Locomotive Steam Engines & Tenders, of the best principle and construction of material, using wrought iron heavy frames with pedestals welded thereto, and all parts of the engine made of the best wrought iron, except cylinders, pumps and boxes—obtaining greater durability, and carrying less weight over the road, than engines constructed of cast iron.

Wrought Iron Tires made any required size, and Fire Bars bent and welded with dispatch.

Chilled Wheels for Cars, Trucks and Tenders, made from the toughest iron.

Driving and Tender and Car Wheels fitted to Axles with Brass Boxes and Springs, and Railroad Machinery generally. Manufactured and for sale by

E. S. NORRIS.

April 11, 1849.

**India-rubber for Railroad Cos.**

RUBBER SPRINGS—Bearing and Buffer—Fuller's Patent—Hose from 1 to 12 inches diameter. Suction Hose. Steam Packing—from 1-16 to 2 in. thick. Rubber and Gutta Percha Bands. These articles are all warranted to give satisfaction, made under Tyler & Helm's patent, issued January, 1849.—No lead used in the composition. Will stand much higher heat than that called "Goodyear's," and is in all respects better than any in use. Proprietors of railroads do not be overcharged by pretenders.

HORACE H. DAY,

Warehouse 23 Courtlandt street.

New York, May 21, 1849.

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CINCINNATI, OHIO.



HECK & DAVENPORT WOULD RESPECTFULLY call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to different points speedy and economical. They are prepared to execute to order, on short notice, Eight-Wheeled Passenger Cars of the most superior description. Open and Covered Freight Cars, Four or Eight-Wheel Crank and Lever Hand Cars, Trucks, Wheels and Axles, and Railroad Work generally.

Cincinnati, Ohio, Oct. 2, 1848.

44ti

**Rolling Mills for Sale.**

THE MASSACHUSETTS IRON COMPY offer for sale their two Mills, situated on Boston Harbor, at South Boston. Each Mill is 214 f. by 174, including sheds. The two contain 15 double Puddling furnaces, and 9 Heating Furnaces.—There are two trains of Rolls in each Mill, altogether capable of manufacturing 1000 tons of rails per month. They are well located for the receipt and delivery of iron from vessels, with every convenience usually attached to such an establishment.

There is connected with, and will be sold at the same time, about 400,000 feet of upland, on which are erected, besides the mills, 4 blocks, containing each 4 brick dwelling houses for workmen: a wooden counting room with dwelling adjoining, a horse stable, and a coal shed 210 feet long by 70 feet wide now containing 2967 chaldrons Pictou coal and 933 tons of pig iron.

The terms of sale will be made liberal. For further information, apply to B. T. REED, Treasurer, Suffolk Buildings.

May 17, 1849.

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